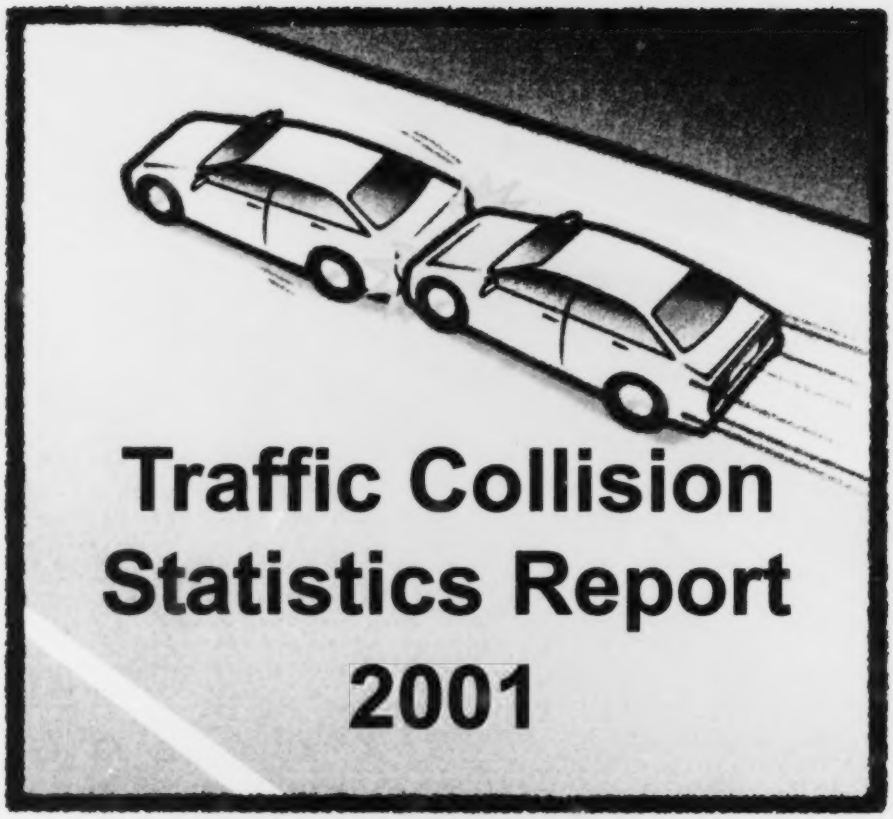

Traffic Collision Statistics Report 2001

Manitoba on the *move*

Manitoba
Building for the Future

Preface

By law, all traffic collisions on public roads resulting in fatalities, injuries, or combined damage exceeding $1,000 must be reported to a law enforcement agency for entry onto Traffic Accident Reports. The information is keyed into the computerized database of the Division of Driver and Vehicle Licencing and the Traffic Engineering Branch, both of which form part of Manitoba's Department of Transportation and Government Services.

The data is used to analyze the reasons why accidents occur. These "contributing factors" include driver actions, the mental and physical condition of drivers, vehicle and weather conditions. Part II identifies precise locations of highway collisions, serving to indicate possible problem areas.

Identifying rates of collision occurrence by a wide variety of factors broadens the range of safety initiatives. This ties in closely with Canada's Road Safety Vision 2010, a national effort aimed at making Canada's roads the safest in the world. It intends to achieve this by alerting the public to key road safety issues, promoting co-operation among road safety agencies, and improving the quality of collision data.

The Traffic Collision Statistics Report is a valuable indicator of the current state of road safety in Manitoba. It enables Government to pinpoint areas for review by traffic safety experts, policy and programming personnel, and legislative and regulatory agencies.

Today, Manitoba is home to more than 710,000 licenced drivers, a 5.6% increase in 10 years. As well, more than 818,000 registered vehicles (excluding off road vehicles) operate in the province.

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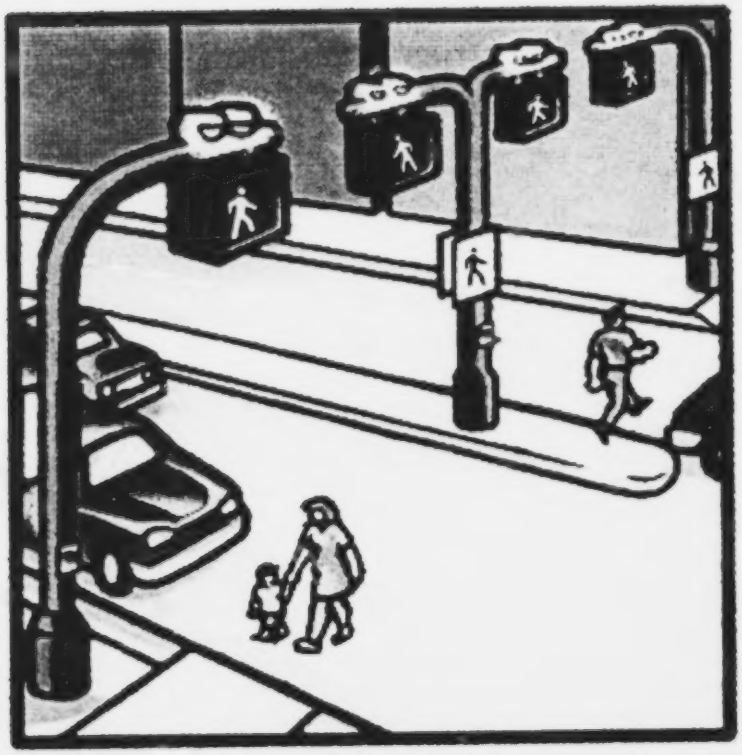
Abbreviation and Symbols

F	Female
M	Male
M/cycle	Motorcycle
N/A	Not Available
NS	Not Stated
NSC	National Safety Code
ORV	Off-Road Vehicles
P. Damage	Property Damage
TARs	Traffic Accident Reports
Ttl	Total
-.-	Minus or Negligible

Part 1

Driver, Vehicle and Traffic Collision Statistics Report



The Driver, Vehicle and Traffic Collision Statistics Report contains information obtained from all "reportable" traffic accidents in Manitoba. Collision statistics are presented in a series of tables and graphs encompassing nationally recognized causal variables including driver action and condition, vehicle condition and environmental factors, including highway condition.

The first section of the report establishes collision rates for licenced drivers and registered vehicles. These rates have been established at 1/1,000 for the total number of drivers and for the total number of registered vehicles involved in all collisions. However, within each group of fatal, injury and property damage collisions the rates for both categories have been set at 1/10,000 to reflect the lower numbers of each subset.

Figures are provided for the 1991 - 2001 period for licenced drivers and for the 1996 - 2001 period for registered vehicles. To improve statistical consistency in 1995, lapsed, cancelled, and suspended vehicle registrations were excluded for the period 1996 - 2001.

Section 2, Licenced Drivers, provides a breakdown by age and gender of data contained in the master data files. Licence status (active or suspended) is also indicated. Section 3, Vehicle Registrations, covers three vehicle categories: Non-Commercial, Commercial, and Off-Road and excludes lapsed, cancelled and suspended vehicle registrations.

Sections 4 through 10 contain collision data compiled from traffic accident reports processed by the Division.

Section 11, dealing with Off-Road Vehicle Collisions, also uses accident data obtained from traffic accident reports.

Section 12, Alcohol-Related Criminal Code Convictions, highlights drinking and driving convictions in Manitoba from 1986 to 2000 and also provides comparison data for the years 1986, 1990 and 2000.

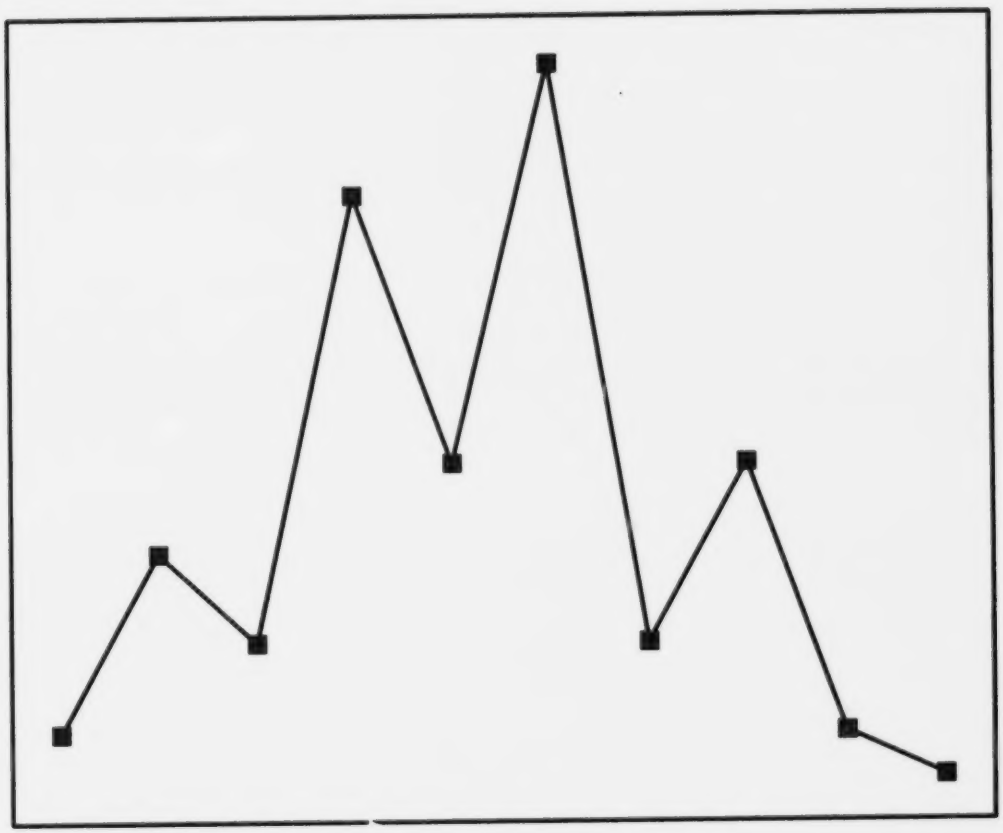
Annual collision statistics are used to:

- indicate trends,
- identify problem driver and vehicle factors,
- evaluate current programs and new provincial road safety initiatives,
- monitor commercial vehicle collisions in accordance with the National Safety Code,
- identify highway locations which may require improvement from a safety and a highway planning perspective, and
- guide development of new policies and programs to reduce the frequency and severity of traffic accidents in the province.

Other government agencies and organizations use the annually published collision data. These include law enforcement agencies, research organizations, consultants, medical groups, and schools and universities having an interest in highway safety. Manitoba Public Insurance's Road Safety Department uses collision data to target and address safety issues from an insurance perspective. The Manitoba Safety Council uses collision data to develop driver improvement and other driver-related safety programs. On a national level, Transport Canada uses the collision data to maintain their fatal and injury accident data base development for national safety standards and to monitor highway safety across Canada.

Section 1

Drivers, Vehicles, and Collision Rates
Historical Trends



Fatal, Injury, and Property Damage Collisions by Total Licenced Drivers[1] 1992 – 2001

Year	Licenced Drivers	Total Collisions	Collisions /1,000 Drivers	Total Fatal	Fatal /10,000 Drivers	Total Injury	Injury /10,000 Drivers	Total P. Damage	P. Damage /10,000 Drivers
1992	672960	30383	45.1	106	1.6	11245	167.1	19032	282.8
1993	672937	29435	43.7	106	1.6	10906	162.1	18423	273.8
1994	675659	29744	44.0	98	1.5	9706	143.7	19940	295.1
1995	680142	32398	47.6	108	1.6	8783	129.1	23507	345.6
1996	684798	29089	42.5	79	1.2	7509	109.7	21501	314.0
1997	687229	27113	39.5	101	1.5	6698	97.5	20334	295.9
1998	692941	27124	39.1	109	1.6	6879	99.3	20136	290.6
1999	702851	28667	40.8	99	1.4	6959	99.0	21609	307.4
2000	706512	30973	43.8	92	1.3	6931	98.1	23950	339.0
2001	710456	30999	43.6	82	1.2	6656	93.7	24261	341.5

[1] Licenced drivers include active and suspended drivers who held a valid licence within the licencing year.

Over the past 10 years, traffic collisions have decreased by 2.0% (30,383 to 30,999) while licenced drivers have increased by 5.6%. Collision rates for licenced drivers have decreased by 3.3% from 45.1/1,000 drivers in 1992 to 43.6/1,000 drivers in 2001. Fatal collision rates decreased by 25.0% from 1.6/10,000 drivers in 1992 to 1.2/10,000 drivers in 2001. Injury collision rates decreased by 43.9% from 167.1/10,000 drivers in 1992 to 93.7/10,000 drivers in 2001.

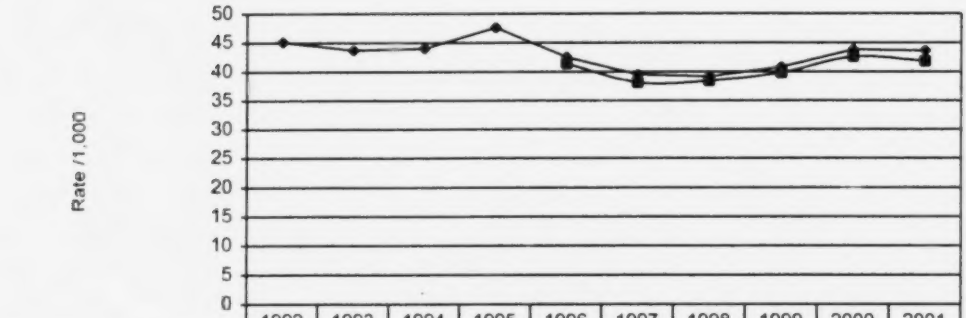
Fatal, Injury, and Property Damage Collisions by Vehicles Registered[1] 1996 – 2001

Year	Vehicles Registered [2]	Total Collisions	Collisions /1,000 Vehicles	Total Fatal	Fatal /10,000 Vehicles	Total Injury	Injury /10,000 Vehicles	Total P. Damage	P. Damage /10,000 Vehicles
1996	703072	29089	41.4	79	1.1	7509	106.8	21501	305.8
1997	711632	27113	38.1	101	1.4	6698	94.1	20334	285.7
1998	706541	27124	38.4	109	1.5	6879	97.4	20136	285.0
1999	719534	28667	39.8	99	1.4	6959	96.7	21609	300.3
2000	727562	30973	42.6	92	1.3	6931	95.3	23950	329.2
2001	742033	30999	41.8	82	1.1	6656	89.7	24261	327.0

[1] Vehicles registered exclude lapsed, cancelled and suspended registrations. Since the latter numbers can only be calculated from 1996, that must serve as the base year.
[2] Vehicles registered exclude off-road vehicles, snow vehicles (HTA), trailers (HTA), tractors other than farm and PSV trailers.

Over the last five years, traffic collision rates have increased by 1.0% from 41.4/1,000 vehicles registered in 1996 to 41.8/1,000 in 2001. Fatal collision rates have remained unchanged while injury collision rates decreased by 16.0% from 106.8/10,000 registered vehicles in 1996 to 89.7/10,000 in 2001.

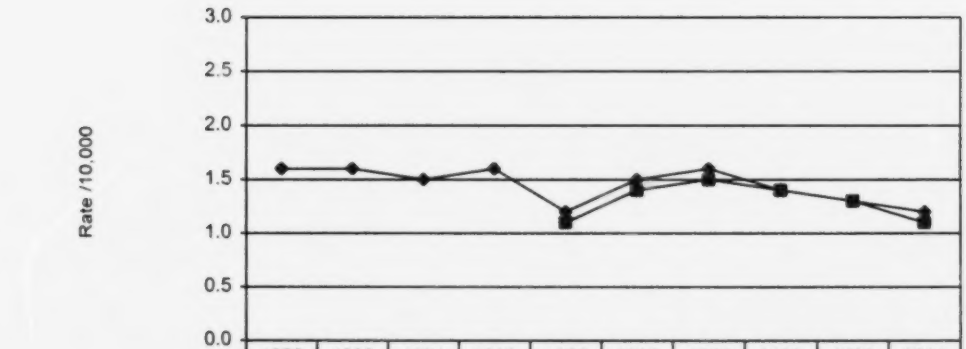
Total Collisions
/1,000 Licenced Drivers and Vehicles Registered
1992 - 2001 and 1996 - 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Licenced Drivers	45.1	43.7	44.0	47.6	42.5	39.5	39.1	40.8	43.8	43.6
Vehicles Registered	n/a	n/a	n/a	n/a	41.4	38.1	38.4	39.8	42.6	41.8

This graph represents a 10-year history of collision rates by licenced drivers and a five-year collision rate for vehicles. Collision rates by licenced drivers decreased between 1996 and 1998 then gradually climbed to 43.8/1,000 in 2000. Since then, rates remained relatively stable. Collision rates for every 1,000 registered vehicles increased by 1.0% between 1996 and 2001, from 41.4 to 41.8.

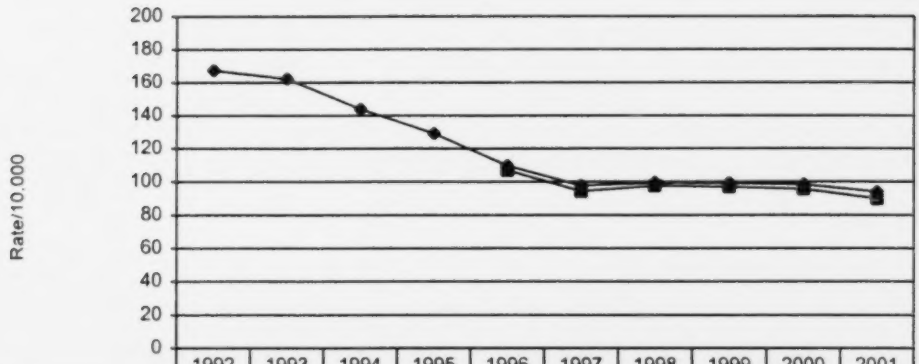
Fatal Collisions
/10,000 Licenced Drivers and Vehicles Registered
1992 - 2001 and 1996 - 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Licenced Drivers	1.6	1.6	1.5	1.6	1.2	1.5	1.6	1.4	1.3	1.2
Vehicles Registered	n/a	n/a	n/a	n/a	1.1	1.4	1.5	1.4	1.3	1.1

Fatal collision rates by licenced drivers declined by 25.0% between 1991 and 2001. The rate of 1.2 per 10,000 licenced drivers recorded in 2001 was the lowest since 1996. As well fatal collision rates by registered vehicles (1.1/10,000) was the lowest since 1996.

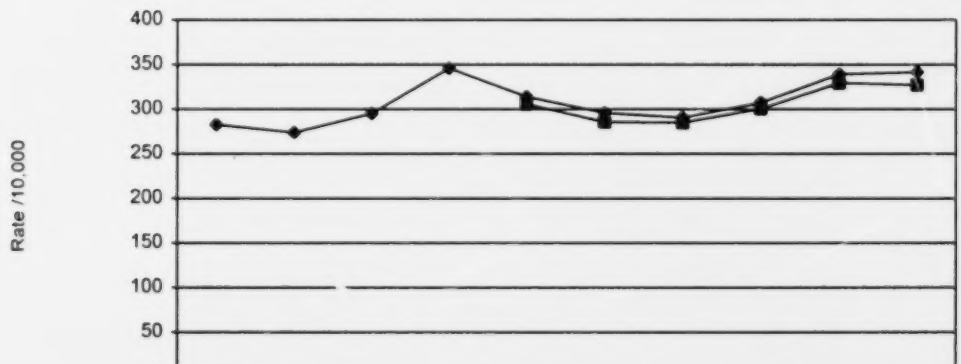
Injury Collisions /10,000 Licenced Drivers and Vehicles Registered 1992 - 2001 and 1996 - 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Licenced Drivers	167.1	162.1	143.7	129.1	109.7	97.5	99.3	99.0	98.1	93.7
Vehicles Registered	n/a	n/a	n/a	n/a	106.8	94.1	97.4	96.7	95.3	89.7

Overall, injury collision rates for licenced drivers declined by 43.9%, from 167.1/10,000 in 1992 to 93.7/10,000 in 2001. Since 1992, injury collision rates gradually decreased to 97.5/10,000 in 1997, the lowest level in that six-year period. From 1998 to 2000, the rate remained relatively stable before decreasing by 4.5% to 93.7/10,000 in 2001. Injury collision rates by vehicles registered decreased by 16.0%, from 106.8/10,000 registered vehicles in 1996 to 89.7/10,000 in 2001.

Property Damage Collisions /10,000 Licenced Drivers and Vehicles Registered 1992 - 2001 and 1996 - 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Licenced Drivers	282.8	273.8	295.1	345.6	314.0	295.9	290.6	307.4	339.0	341.5
Vehicles Registered	n/a	n/a	n/a	n/a	305.8	285.7	285.0	300.3	329.2	327.0

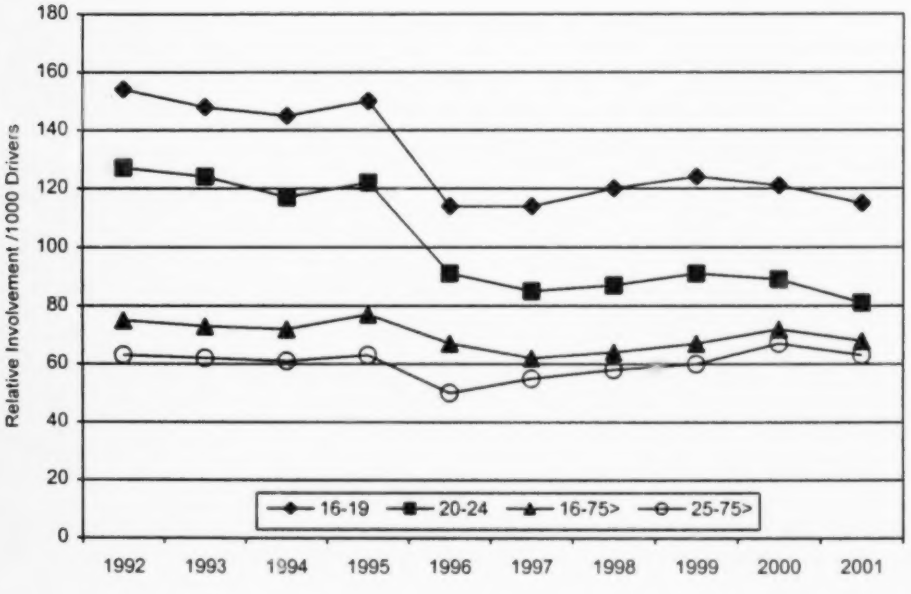
Property damage collision rates rose by 17.5% from 290.6/10,000 in 1998 to 341.5/10,000 in 2001 (licenced drivers) and from 285.0/10,000 in 1998 to 327.0/10,000 in 20001 (vehicles registered).

Relative Involvement /1,000 Drivers by Age Group 1992 – 2001

Age Group	Year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
16-19	154	148	145	150	117	117	120	124	121	115
20-24	127	124	117	122	95	89	87	91	89	81
25-34	84	83	80	85	68	63	62	64	62	57
35-44	64	62	63	64	54	51	50	53	53	48
45-54	54	53	54	57	49	45	44	47	46	44
55-64	47	46	47	48	42	38	39	42	40	38
65-74	39	41	41	42	38	34	34	36	37	34
75>	45	43	43	45	38	33	36	38	38	38
Ages 16-75>	75	73	72	77	70	64	64	67	72	68
Ages 25-75>	63	62	61	63	64	58	58	60	67	63

Relative involvement rates indicate 16-19 year olds are more likely to be involved in collisions than any other age group. The relative involvement rates for all ages (16-75>) are higher than for the age group, 25-75>, (68/1,000 versus 63/1,000).

Relative Involvement /1,000 Drivers by Selected Age Group 1992 – 2001



Section 2

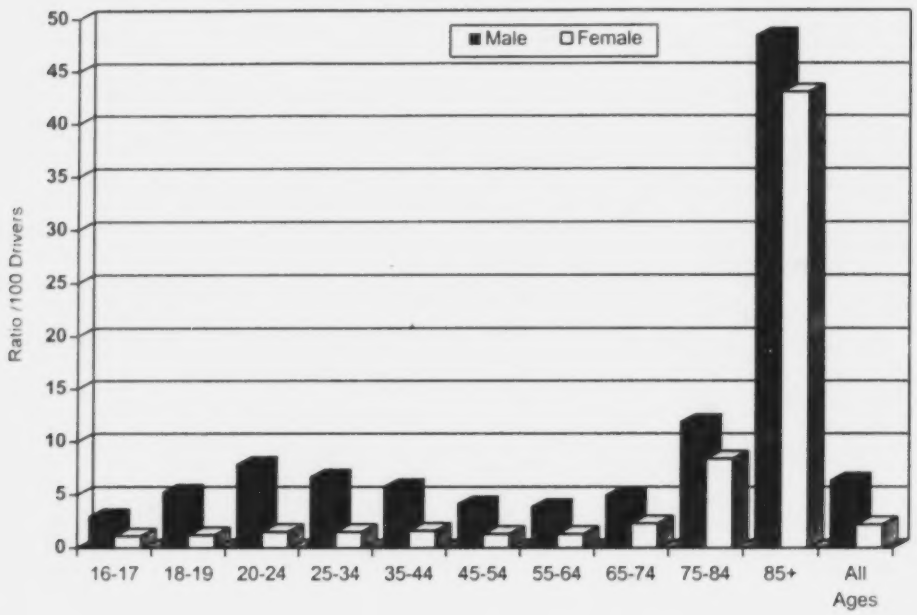
Licenced Drivers

By Age Group, Sex, and Driver Status
2001

Age Group	Sex	Active Drivers	Suspended Drivers	Total Drivers	%	Suspended /100 Drivers
16-17	M	11829	367	12196		3.0
	F	10561	120	10681		1.1
	Total	22390	487	22877	3.2	2.1
18-19	M	11832	662	12494		5.3
	F	10364	129	10493		1.2
	Total	22196	791	22987	3.2	3.4
20-24	M	28328	2425	30753		7.9
	F	25862	392	26254		1.5
	Total	54190	2817	57007	8.0	4.9
25-34	M	59936	4307	64243		6.7
	F	54583	825	55408		1.5
	Total	114519	5132	119651	16.8	4.3
35-44	M	78066	4804	82870		5.8
	F	70347	1113	71460		1.6
	Total	148413	5917	154330	21.7	3.8
45-54	M	71677	3172	74849		4.2
	F	63299	808	64107		1.3
	Total	134976	3980	138956	19.6	2.9
55-64	M	46720	1901	48621		3.9
	F	39349	526	39875		1.3
	Total	86069	2427	88496	12.5	2.7
65-74	M	32644	1706	34350		5.0
	F	26047	603	26650		2.3
	Total	58691	2309	61000	8.6	3.8
75-84	M	18230	2474	20704		11.9
	F	14107	1291	15398		8.4
	Total	32337	3765	36102	5.1	10.4
85>	M	3119	2922	6041		48.4
	F	1716	1293	3009		43.0
	Total	4835	4215	9050	1.3	46.6
All Ages	M	362381	24740	387121		6.4
	F	316235	7100	323335		2.2
	Total	678616	31840	710456	100.0	4.5

Active drivers include the annual average of drivers on file with a driver licence expiry date in the future.
Suspended drivers refer to an annual average of drivers who are suspended.

Comparison of Male and Female Suspended Drivers /100 Licenced Drivers 2001



The age groups 75-84 and 85> display a comparatively higher number of suspensions as drivers in these age groups typically represent drivers indefinitely suspended for medical reasons.

Total Licenced Drivers by Year and Driver Status 1992 - 2001

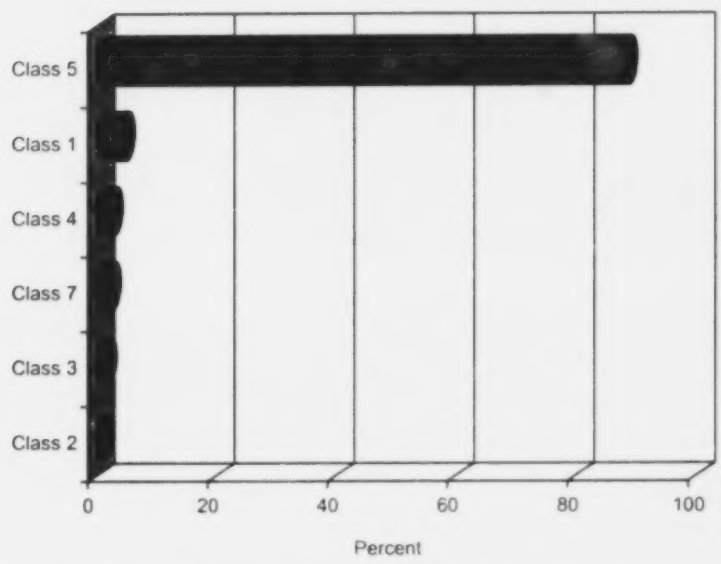
Licencing Year	Active Drivers	Suspended Drivers	Total Drivers
1992	645848	27112	672960
1993	646108	26829	672937
1994	648776	26883	675659
1995	652220	27922	680142
1996	655566	29232	684798
1997	658602	28627	687229
1998	663980	28961	692941
1999	672824	30027	702851
2000	675532	30980	706512
2001	678616	31840	710456

By Licence Class, Driver Status, and Sex
2001

Licence Class	Active Drivers				Suspended Drivers				Total	%
	Male	Female	S/Total	%	Male	Female	S/Total	%		
1.0	22173	985	23158	3.4	733	15	748	2.4	23906	3.4
1.6[1]	7753	104	7857	1.1	148	0	148	0.5	8005	1.1
2.0	3776	1401	5177	0.8	106	13	119	0.4	5296	0.8
2.6[1]	1126	90	1216	0.2	12	2	14	-.-	1230	0.2
3.0	7922	256	8178	1.2	267	4	271	0.8	8449	1.2
3.6[1]	2385	24	2409	0.4	38	0	38	0.1	2447	0.3
4.0	10257	4126	14383	2.1	521	48	569	1.8	14952	2.1
4.6[1]	2598	166	2764	0.4	37	2	39	0.1	2803	0.4
5.0	268345	297461	565806	83.4	20507	6399	26906	84.5	592712	83.4
5.6[1]	30474	3672	34146	5.0	824	30	854	2.7	35000	4.9
6.0	13	3	16	-.-	4	0	4	-.-	20	-.-
7.0	5559	7947	13506	2.0	1543	587	2130	6.7	15636	2.2
Total	362381	316235	678616	100.0	24740	7100	31840	100.0	710456	100.0

[1] .6 refers to a motorcycle licence held in conjunction with another class of class.

Distribution of Total Drivers by Licence Class[1]
2001



[1] Licence Class .6 motorcycle designation included with whole number.

Class Licence System Quick Reference Chart

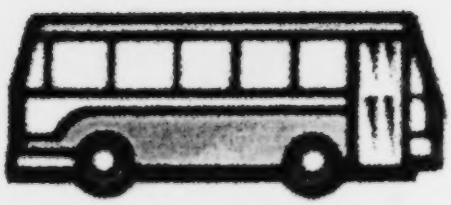
Licence Class	Description
1	Class 1 licence permits the holder to operate all motor vehicles (except motorcycles) or combination of vehicles, semi-trailers, trucks, buses, etc., including all vehicles in Classes 2, 3, 4, and 5.
2	Class 2 licence permits the holder to operate all vehicles except vehicles in Class 1 and 6.
3	Class 3 licence permits the holder to operate all motor vehicles except vehicles in Classes 1, 2, and 6.
4	Class 4 licence permits the holder to operate all motor vehicles except vehicles in Classes 1, 2, 3, and 6.
5	Class 5 licence permits the holder to operate a Class 5 motor vehicle and a Class 3 motor vehicle if it is registered as a farm truck.
6	Class 6 licence permits the holder to operate a motorcycle. Operation of vehicles in Classes 1 to 5 are prohibited, unless the Class 6 licence is held in conjunction with Class 1, 2, 3, 4 or 5 licence.
7	Class 7 licence permits the holder to drive as a learner within Classes 1 to 5, if shown on the licence, and accompanied by a licenced driver with at least 24 months driving experience in that class of vehicle. Class 7 licence may be used in conjunction with a valid motorcycle instruction permit.

Vehicle Classification Quick Reference Chart

Vehicle Class	Description
1	Semi-trailer trucks.
2	Buses having a seating capacity of over 24 passengers, while carrying passengers, and school buses having a seating capacity of over 36 passengers, while carrying passengers.
3	Trucks with more than two axles, including any combination of vehicles, or trucks with not more than two axles towing a vehicle with a registered gross vehicle weight (GVW) of more than 4,540 kg. but does not include a semi-trailer truck.
4	Taxis, ambulances, and any other emergency vehicles and buses having a seating capacity between 10 and 24 passengers, while carrying passengers, or school buses having a seating capacity between 10 and 36 passengers, while carrying passengers.
5	Passenger cars, a bus while not carrying passengers, a truck with not more than two axles, and any combination of vehicles consisting of a truck with not more than two axles and a towed vehicle with a registered gross vehicle weight (GVW) of not more than 4,540 kg.
6	Motorcycles.

Section 3

Vehicle Registrations



By Non-Commercial Vehicle Class
2001

Vehicle Class[1]	Net Total	%
Passenger	511300	67.6
Antique	73	-.-
Motorcycle/Moped	5694	0.8
Truck	116702	15.4
Farm Truck	46263	6.1
Snow Vehicle	22	-.-
Trailer	76633	10.1
Tractor (Other than Farm-type)	80	-.-
Total Vehicles Registered	756767	100.0
Off-Road Vehicles (*The Off-Road Vehicles Act*)		
Total ORV Registered	29288	

By Commercial Vehicle Class
2001

Vehicle Class[1]	Net Total	%
Commercial Truck	16372	26.4
Public Service Vehicle Truck	5686	9.2
Dealer and Repairer	5015	8.1
Taxi/Livery	840	1.4
Public Service Vehicle Bus	71	0.1
Commercial Trailer	34017	54.8
Public Service Vehicle Trailer	35	-.-
Total Vehicles Registered	62036	100.0

[1]For definition of these motor vehicle classes refer to the glossary.

The vehicle registration figures for 2001 cannot be compared with figures appearing before 1996 since the reporting threshold excludes lapsed, cancelled, and suspended vehicle registrations and includes transfers and short term policies.

The method of counting motorcycle registrations takes into account Transport Canada's observation that a motorcycle is not used for the full year. Accordingly, each motorcycle registration has been counted as 0.5.

Summary
1996 – 2001

Registration Class	1996	1997	1998	1999	2000	2001	% Change 2000-2001
Non-Commercial Vehicle Class							
Passenger	491,518	492,729	488,974	496,295	502,987	511,300	1.7
Antique	32	37	54	58	68	73	7.4
Motorcycle/Moped	4,431	4,435	5,128	4,893	5,217	5,694	9.1
Truck	105,914	110,381	113,777	116,054	115,740	116,702	0.8
Farm Truck	51,220	51,041	48,725	47,912	46,726	46,263	-1.0
Snow Vehicle	28	29	26	27	25	22	-12.0
Trailer	68,930	70,535	69,491	72,175	73,334	76,633	4.5
Tractor (non-farm)	75	85	84	78	73	80	9.6
Subtotal	722,148	729,272	726,259	737,492	744,170	756,767	1.7
Commercial Vehicle Class							
Truck	15,020	15,588	16,002	16,249	16,196	16,372	1.1
PSV – Truck	2,544	2,964	3,289	3,646	3,776	5,686	50.6
Dealer/Repairer	3,634	3,977	4,142	4,538	4,814	5,015	4.2
Taxi/Livery	843	1,077	803	763	833	840	0.8
PSV-Bus	23	20	19	64	71	71	0.0
Trailers[1]	27,893	29,383	25,628	29,062	31,134	34,017	9.3
PSV-Trailers	12	14	23	26	30	35	16.7
Subtotal	49,969	53,023	49,906	54,348	56,854	62,036	9.1
Total Registrations	**772,117**	**782,295**	**776,165**	**791,840**	**801,024**	**818,803**	**2.2**
Off-Road Vehicles							
Total	25,810	24,823	24,214	25,170	29,291	29,288	-.-
Off-Road Vehicle Dealer Plates							
Total	244	249	232	236	260	238	-8.5

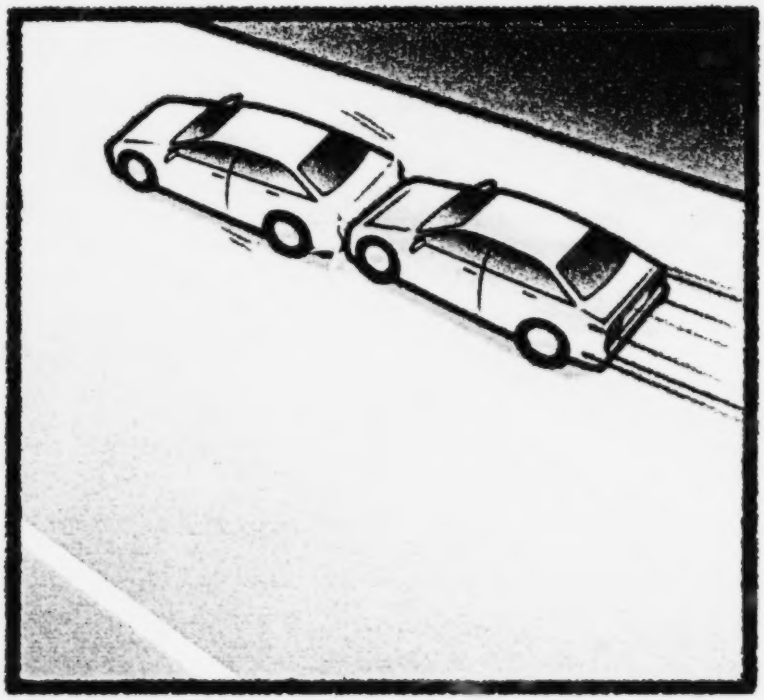
[1]Commercial trailers include semi-trailers.

Numbers for each of these years cannot be compared with figures appearing in earlier annual reports since they exclude lapsed, cancelled, and suspended vehicle registrations. Five-year reporting is provided since it was not possible to compute the number of lapsed, cancelled, and suspended vehicle registrations before 1996.

Total vehicle registrations (excluding off-road vehicles) increased by 6.0% between 1996 and 2001, from 772,117 to 818,803. Non-commercial vehicle registrations rose by 4.8%, from 722,148 to 756,767 while commercial vehicle registrations rose by 24.1%, from 49,969 to 62,036.

Section 4

Traffic Collisions



INTRODUCTION TO SECTION 4

This section begins with a 10-year summary highlighting the four key elements of traffic collisions:

- the number of collisions;
- the number of victims killed or injured;
- the number of vehicles involved in the collisions; and
- the number of drivers involved.

Crashes are defined by three accident severity types: fatal, injury and property damage. A fatal traffic accident is a crash where an injured victim dies within 30 days. A motor vehicle collision resulting in injury but not death is an injury collision. Property damage crashes in excess of $1,000 combined damage must also be reported to a law enforcement agency

The elements examined in this section include:

- month, day, time of crash;
- environmental (weather, road surface); and
- provincial locations (cities/towns).

It is important to note that the number of fatal or injured collisions does not indicate the number of fatal or injured victims as each collision can result in multiple victims.

The term, "collision type" refers to the object struck by a motor vehicle (for example, a pedestrian, another motor vehicle, or a fixed object) or to what happened to the vehicle in a single-vehicle mishap (for example, overturned, ran off road). Urban and rural locations due to significant variations in collision severity (fatal, injury, property damage) and collision types are also examined.

"Accident configuration" provides a very brief description of the action taken by one vehicle relative to another when the accident occurred.

Ten Year Summary
1992 – 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Collisions	30383	29435	29744	32398	29089	27133	27124	28667	30973	30999
Fatal	106	106	98	108	79	101	109	99	92	82
Injury	11245	10906	9706	8783	7509	6698	6879	6959	6931	6656
P. Damage	19032	18423	19940	23507	21501	20334	20136	21609	23950	24261
Total Victims	16222	15751	13951	12266	10560	9267	9652	9810	9596	9096
Killed	118	134	119	128	93	119	121	113	111	94
Injured	16104	15617	13832	12138	10467	9148	9531	9697	9485	9002
Total Vehicles Involved	52741	51362	51099	55392	49712	45959	46005	48457	52810	51123
Fatal	164	161	161	188	115	147	170	157	140	138
Injury	21081	20573	18140	16120	13428	11955	12371	12543	12362	11770
P. Damage	31496	30628	32798	39084	36169	33857	33464	35757	40308	39215
Total Drivers Involved	48343	47260	46651	50319	46020	42324	42578	44862	48859	46324
Fatal	152	150	152	171	110	142	164	151	136	127
Injury	20344	19852	17421	15530	12891	11487	11908	12096	11943	11377
P. Damage	27847	27258	29078	34618	33019	30695	30506	32615	36780	34820

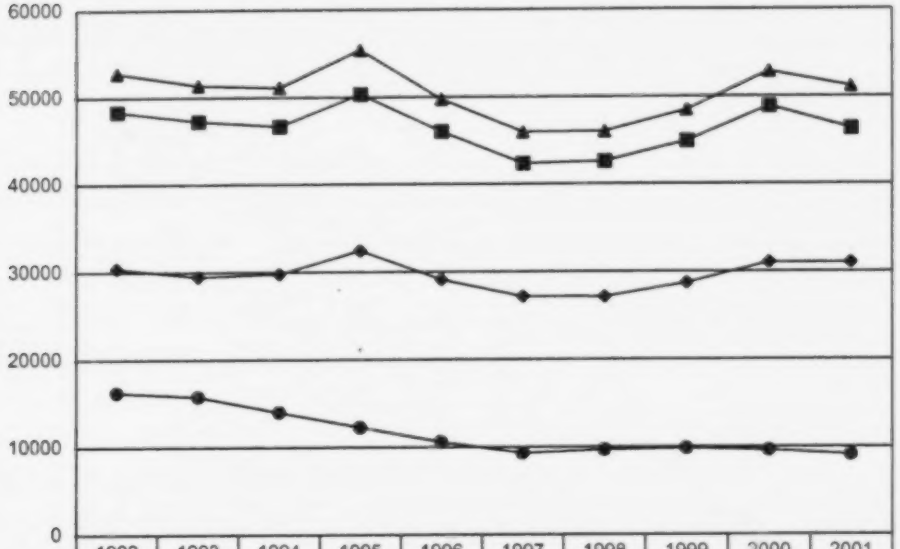
In 2001 there were 30,999 reportable traffic accidents. Fatal collisions decreased by 10.9% from 92 in 2000 to 82 in 2001. Injury collisions decreased by 4.0% from 6,931 in 2000 to 6,656 in 2001. Property damage collisions increased by 1.3% from 23,950 in 2000 to 24,261in 2001.

The overall number of collision victims decreased by 5.2% from 9,596 in 2000 to 9,096 in 2001. The number of victims killed decreased by 15.3% from 111 in 2000 to 94 in 2001. Victims injured decreased by 5.1% from 9,485 in 2000 to 9,002 in 2001.

There were a total of 51,123 vehicles involved in traffic collisions in 2001, 3.2% less than the 52,810 recorded in 2000. The number of vehicles involved in fatal traffic accidents decreased by 1.4% from 140 in 2000 to 138 in 2001. Vehicles involved in injury collisions decreased by 4.8% from 12,362 in 2000 to 11,770 in 2001. Property damage vehicle involvement decreased by 2.7% from 40,308 in 2000 to 39,215 in 2001.

The overall number of drivers involved in traffic collisions in 2001 decreased by 5.2% from 48,859 in 2000 to 46,324 in 2001. The number of drivers involved in fatal collisions dropped by 6.6% from 136 in 2000 to 127 in 2001. Drivers involved in injury collisions decreased by 4.7% from 11,943 in 2000 to 11,377 in 2001. Drivers involved in property damage collisions decreased from 36,780 in 2000 to 34,820 in 2001, a 5.3% decrease.

Ten Year Summary
1992 – 2001



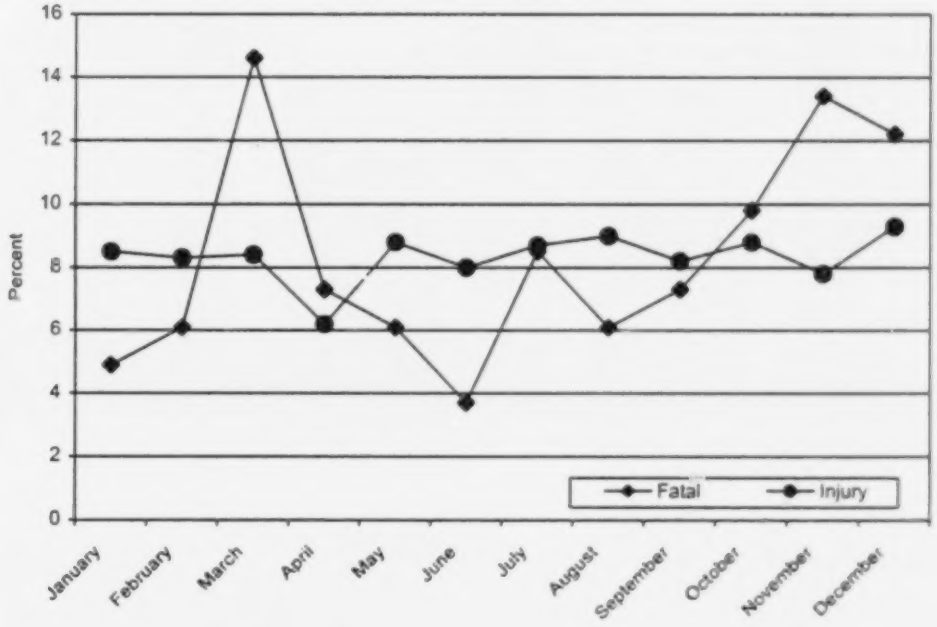
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Collisions	30383	29435	29744	32398	29089	27133	27124	28667	30973	30999
Victims	16222	15751	13951	12266	10560	9267	9652	9810	9596	9096
Vehicles	52741	51362	51099	55392	49712	45959	46005	48457	52810	51123
Drivers	48343	47260	46651	50319	46020	42324	42578	44862	48859	46324

By Month of Occurrence and Collision Type
2001

Month	Collision Type			Total	%
	Fatal	Injury	P. Damage		
January	4	567	2336	2907	9.4
February	5	550	2245	2800	9.0
March	12	557	2140	2709	8.7
April	6	415	1647	2068	6.7
May	5	582	1702	2289	7.4
June	3	532	1846	2381	7.7
July+	7	578	1736	2321	7.5
August	5	598	1770	2373	7.7
September	6	549	1643	2198	7.1
October	8	588	2076	2672	8.6
November	11	519	2337	2867	9.2
December	10	621	2783	3414	11.0
Total	82	6656	24261	30999	100.0

January, November and December accounted for 29.6% of the total collisions occurring in 2001. March had the highest number of fatal collisions (12), followed by November (11). December recorded the highest number of injury (621) and property damage (2783) collisions. The graph below indicates that fatal collisions peaked in March and November/December while injury collisions remained relatively constant.

Comparison of Fatal and Injury Collisions
by Month of Occurrence
2001

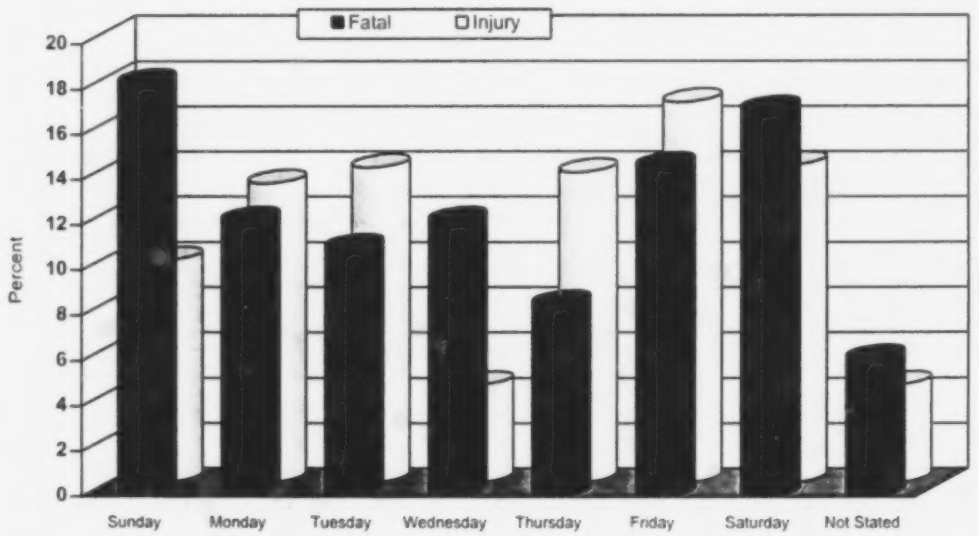


By Day of Occurrence and Collision Type
2001

Day	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Sunday	15	653	2305	2973	9.6
Monday	10	881	3030	3921	12.6
Tuesday	9	922	3022	3953	12.7
Wednesday	10	950	3257	4217	13.6
Thursday	7	910	3409	4326	14.0
Friday	12	1118	4031	5161	16.7
Saturday	14	933	3466	4413	14.2
Not Stated	5	289	1741	2035	6.6
Total	82	6656	24261	30999	100.0

Overall, more accidents occurred on Friday (16.7%) than on any other day of the week. Collisions that resulted in deaths occurred more frequently on Saturdays and Sundays (35.4%), while fewest fatal collisions took place on Thursdays, at 8.5%. Injury collisions happened most often on Fridays and Wednesdays (16.8% and 14.3%), while these crashes occurred least often on Sundays, at 9.8%.

Fatal and Injury Collisions
by Day of Occurrence
2001



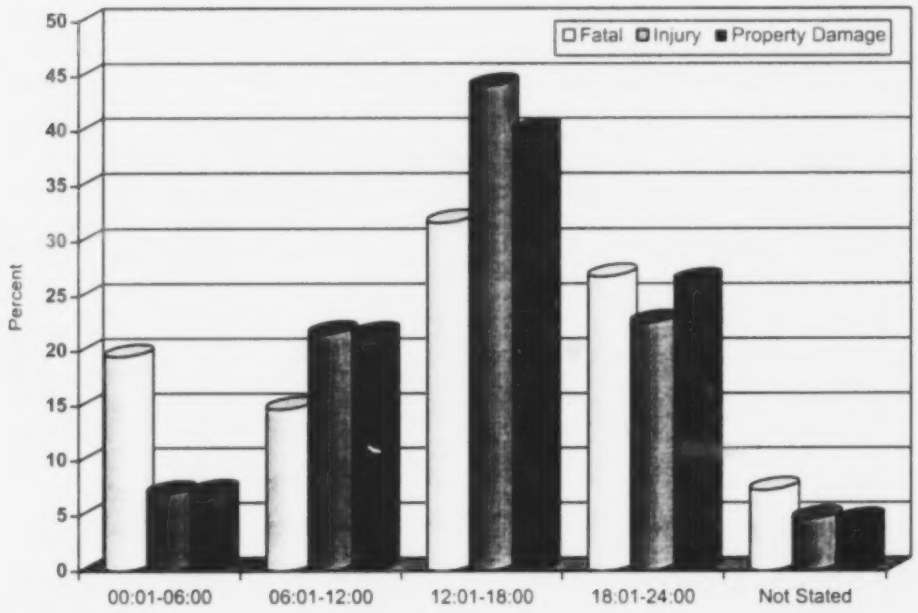
Property damage collisions not graphically displayed.

By Time of Occurrence and Collision Type
2001

Time	Collision Type			Total	%
	Fatal	Injury	P. Damage		
00:01 - 06:00	16	464	1738	2218	7.1
06:01 -12:00	12	1438	5234	6684	21.6
12:01 - 18:00	26	2935	9741	12702	41.0
18:01 - 24:00	22	1503	6440	7965	25.7
Not Stated	6	316	1108	1430	4.6
Total	82	6656	24261	30999	100.0

Overall, the highest incidence of traffic collisions (41.0%) occurred between 12:01 - 18:00 hours. Collisions were nearly six times more likely to occur in this time frame than the early morning. Fatal and injury producing collisions occurred within the same time frame at 31.7% and 44.1%. Collisions that resulted in fatalities occurred least frequently during the period from 06:01 to 12:00.

Comparison of Total Traffic Collisions
by Time of Occurrence and Collision Type
2001



By Collision Type and Urban/Rural Location
2001

Collision Type	Location												%
	Urban				Rural				Provincial Total				
	Fatal	Injury	P. Damage	Total	Fatal	Injury	P. Damage	Total	Fatal	Injury	P. Damage	Total	
Pedestrian	6	424	12	442	4	20	1	25	10	444	13	467	1.5
Motor Vehicle	9	4084	16685	20778	27	481	921	1429	36	4565	17606	22207	71.6
Train	0	3	7	10	1	11	5	17	1	14	12	27	0.1
Motorcycle	2	68	42	112	0	27	6	33	2	95	48	145	0.5
Bicycle	2	200	24	226	2	5	0	7	4	205	24	233	0.8
Animal	0	17	169	186	1	172	3052	3225	1	189	3221	3411	11.0
Fixed Object	0	241	1467	1708	4	56	250	310	4	297	1717	2018	6.5
Other Object	0	18	68	86	4	25	101	130	4	43	169	216	0.7
Overturned	0	11	11	22	5	69	67	141	5	80	78	163	0.5
Ran Off Roadway	0	82	138	220	15	634	1045	1694	15	716	1183	1914	6.2
Other Non Collision	0	2	53	55	0	6	137	143	0	8	190	198	0.6
Total	19	5150	18676	23845	63	1506	5585	7154	82	6656	24261	30999	100.0

In urban areas, the primary collision type was "motor vehicle to motor vehicle" which accounted for 87.1% of total reportable collisions, while in rural areas, the primary collision type was "motor vehicle to animal" at 45.1%.

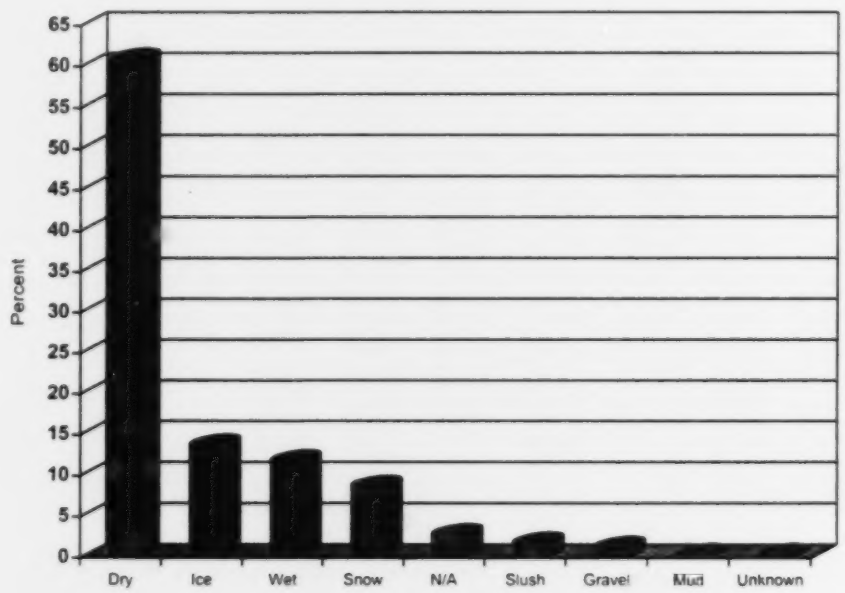
Fatal collisions occurred almost three-and-a-half times as often on rural roadways than in urban areas. In urban areas, "motor vehicle" and "pedestrian" were the primary fatal collision types, whereas in rural areas, "motor vehicle", "ran off roadway" and "overturned" were the most frequently identified fatal collision types.

By Road Surface Condition and Collision Type
2001

Road Surface Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Dry	54	4131	14617	18802	60.7
Wet	5	896	2700	3601	11.6
Mud	0	12	56	68	0.2
Snow	5	435	2196	2636	8.5
Ice	10	842	3331	4183	13.5
Slush	1	124	358	483	1.6
Loose Sand/Gravel/Dirt	2	107	242	351	1.1
Fresh Oil	0	3	4	7	-.-
Not Applicable	4	103	713	820	2.6
Other	0	0	1	1	-.-
Unknown	1	3	43	47	0.2
Total	82	6656	24261	30999	100.0

Of the total traffic collisions, 60.7% occurred under "dry" road surface conditions. Ice, wet and snow-covered road surfaces accounted for 24.4% of fatal collisions, 32.6% of injury collisions, and 33.9% of property damage collisions.

Distribution of Total Collisions
by Road Surface Condition
2001

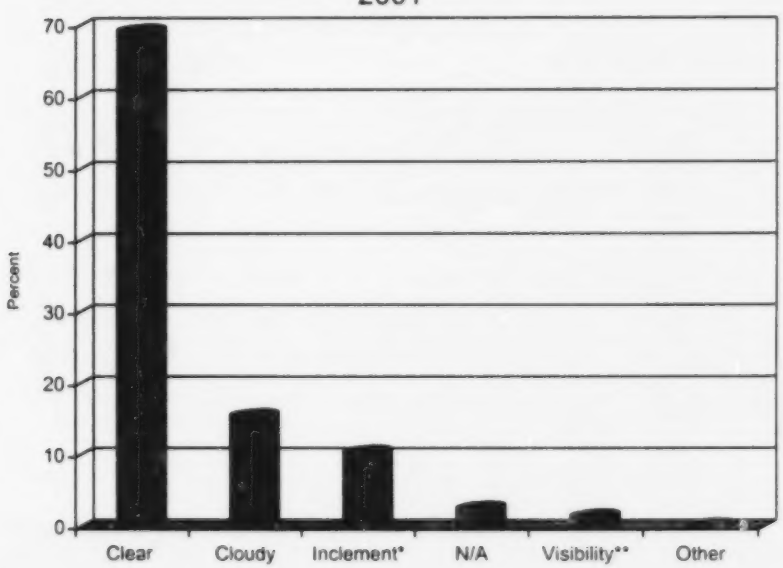


By Weather Condition and Collision Type
2001

Weather Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Clear	54	4582	16860	21496	69.3
Cloudy	16	1090	3719	4825	15.6
Raining	1	384	1158	1543	5.0
Snowing	3	285	1059	1347	4.3
Fog or Mist	1	92	373	466	1.5
Smoke or Dust	0	8	13	21	0.1
Freezing Rain/Sleet/Hail	2	34	74	110	0.3
Drifting Snow	0	47	130	177	0.6
Strong Winds	1	24	67	92	0.3
Not Applicable	4	101	730	835	2.7
Unknown	0	0	1	1	-.-
Other	0	9	77	86	0.3
Total	82	6656	24261	30999	100.0

"Clear" weather conditions accounted for 69.3% of total traffic collisions and 65.9% of fatal traffic collisions. "Cloudy", "raining", and "snowing" accounted for 24.4% of fatal collisions, 26.4% of injury collisions, and 24.5% of property damage collisions.

Distribution of Total Collisions
by Weather Condition
2001



*Inclement weather includes raining, snowing, freezing rain/sleet/hail, drifting snow and strong winds. **Visibility weather conditions include fog/mist and smoke/dust.

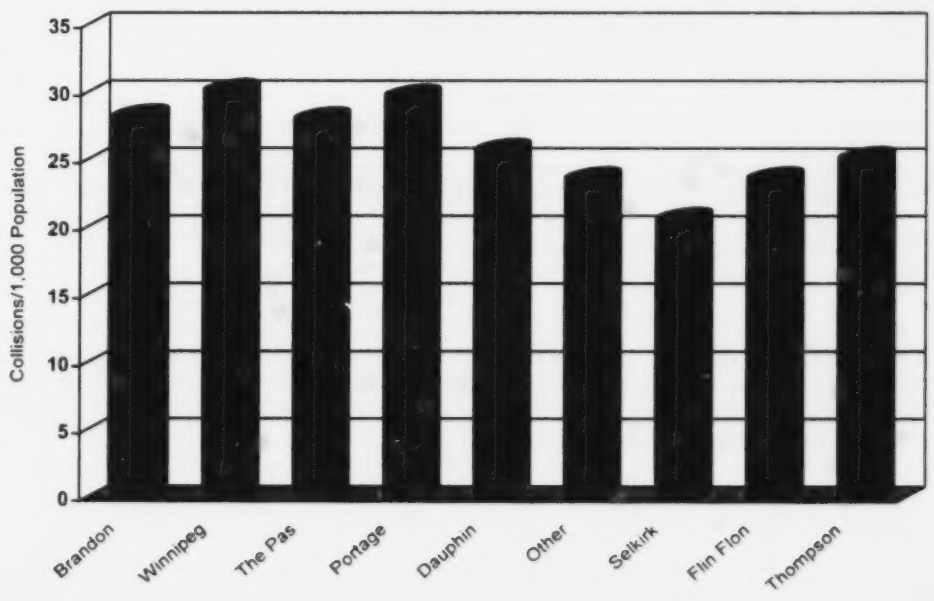
By Provincial Location and Collision Type
2001

Location	Collision Type			Total	%	Collisions /1,000 Population[1]
	Fatal	Injury	P. Damage			
Winnipeg	16	4436	14240	18692	60.3	30.2
Brandon	1	169	953	1123	3.6	28.3
Portage la Prairie	0	48	340	388	1.2	29.8
Flin Flon	0	8	134	142	0.4	23.7
Dauphin	1	21	187	209	0.7	25.8
Thompson	0	41	293	334	1.1	25.2
The Pas	0	21	142	163	0.5	28.1
Selkirk	0	35	167	202	0.7	20.7
Other – Urban	1	371	2220	2592	8.4	23.7
Other – Rural	63	1506	5585	7154	23.1	
Total	82	6656	24261	30999	100.0	27.7

[1]Based on 2001 rounded-up census statistics from Statistics Canada.

Of the total traffic collisions, 60.3% occurred within the City of Winnipeg, while 23.1% of the total collisions occurred in rural areas. However, rural roadway collisions accounted for 76.8% of total fatal collisions.

Distribution of Total Collisions
by Provincial Location /1,000 Population
2001



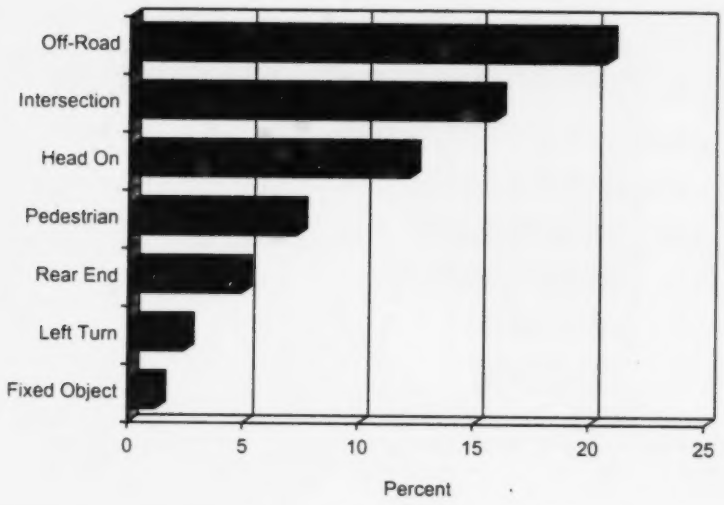
By Accident Configuration and Collision Type
2001

Configuration	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Rear End	4	1961	4054	6019	19.4
Head On	10	91	192	293	1.0
Side Swipe	0	64	336	400	1.3
Side Swipe	0	169	1175	1344	4.3
Overtaking	0	56	408	464	1.5
Right Turn	0	28	139	167	0.5
Right Turn	0	13	93	106	0.3
Left Turn	0	78	229	307	1.0
Left Turn	1	35	159	195	0.6
Left Turn	1	359	905	1265	4.1
Intersection 90°	13	1108	2530	3651	11.8
Off-Road Right	9	381	620	1010	3.3
Off-Road Left	8	281	464	753	2.4
Fixed Object	1	178	1053	1232	4.0
Parking	0	33	1336	1369	4.4
Pedestrian	6	362	14	382	1.2
Other[1]	29	1459	10554	12042	38.9
Total	82	6656	24261	30999	100.0

[1] Accidents with two or more vehicles involved or more than one collision configuration.

Accident configurations by collision type *display different relationships*. For example, "rear end" collisions accounted for the largest percentage of injury collisions (29.5%) and property damage collisions (16.7%) but the largest percentage of fatal collisions occurred at "intersections" (15.8%). "Left turn" configurations ranked third in the percentage of all collisions (5.7%).

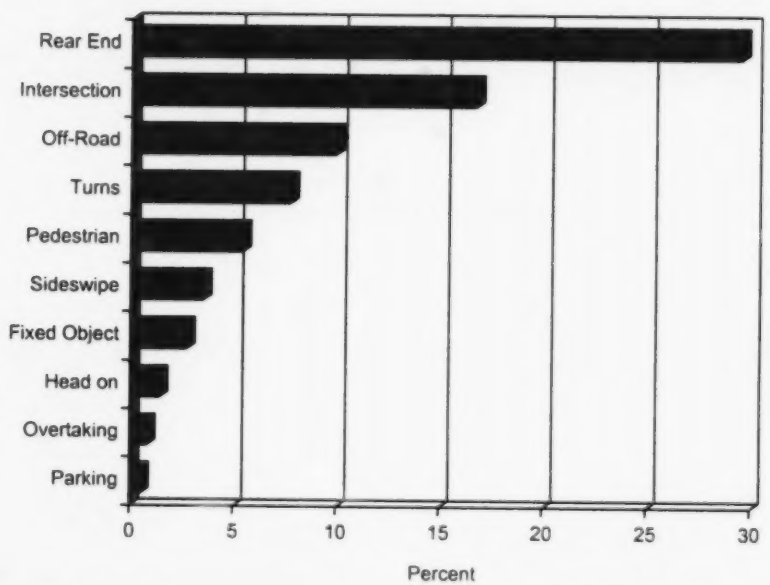
Distribution of Fatal Collisions by Accident Configuration
2001



Other category excluded since this configuration usually describes collisions involving more than two vehicles or more than one collision configuration.

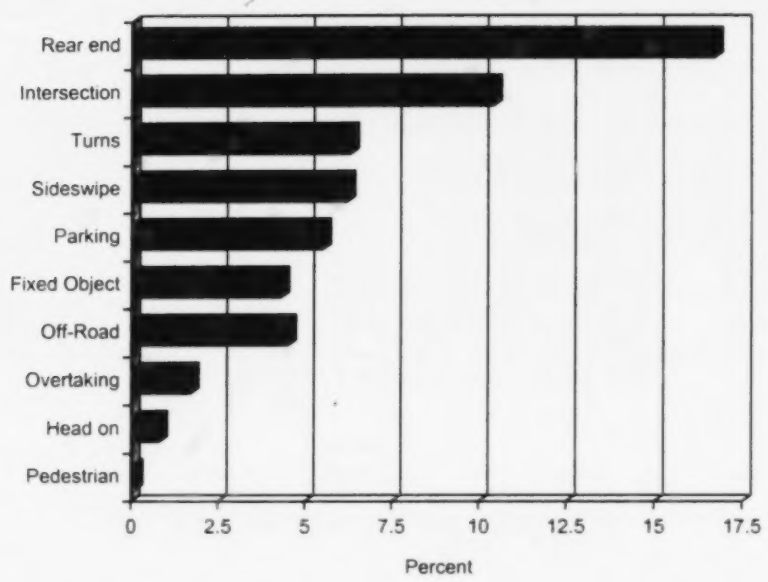
Of all fatal collisions, 36.6% occurred in "off-road" and "intersection 90^0" configurations. "Off-road" configurations are collisions where a single vehicle entered right ditch or a single vehicle crossed the road and entered the ditch.

Distribution of Injury Collisions by Accident Configuration
2001



"Rear-end" and "intersection 90^0" configurations account for 46.2% of injury collisions.

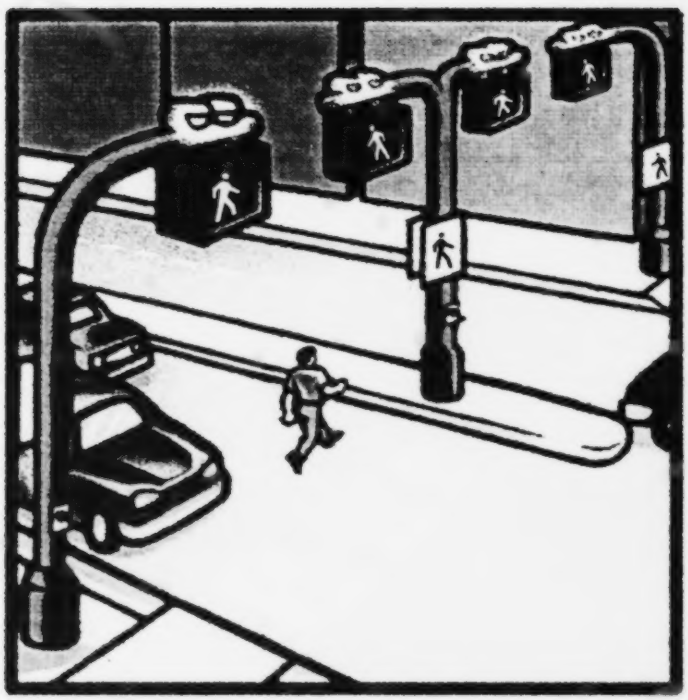
Distribution of Property Damage Collisions by Accident Configuration
2001



"Rear-end" and "intersection 90^{0}" configurations account for 27.1% of property damage collisions.

Section 5

Collision Victims



INTRODUCTION TO SECTION 5

Only those individuals who die within 30 days of the crash are included in the killed category.

There are four types of non-fatal injured victims:

- minimal - require no hospital treatment;
- minor - treated and released;
- major - victim was admitted to hospital; and
- non-specified injury.

The elements examined in this section include:

- month, day, time of crash;
- age group and gender;
- road user class;
- collision type and configuration; and
- safety equipment usage.

"Accident configuration" indicates the number of individuals killed and injured while the vehicles were involved in particular manoeuvres (such as turning left, approaching too close - rear end, side swipe) or approaches (such as intersection). The section also indicates the degree to which vehicle defects contributed to death or injury.

The final table of this section refers to safety equipment usage for all vehicle occupants involved in fatal collisions. At this time, no record is kept of the degree to which safety equipment prevented a vehicle user from becoming a victim since only victims are recorded.

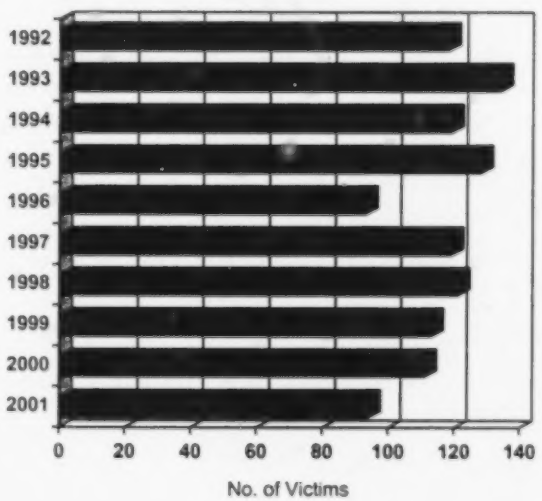
Ten Year Summary
1992 – 2001

Year	Injury Type		Total
	Killed	Injured	
1992	118	16104	16222
1993	134	15617	15751
1994	119	13832	13951
1995	128	12138	12266
1996	93	10467	10560
1997	119	9148	9267
1998	121	9531	9652
1999	113	9697	9810
2000	111	9485	9596
2001	94	9002	9096

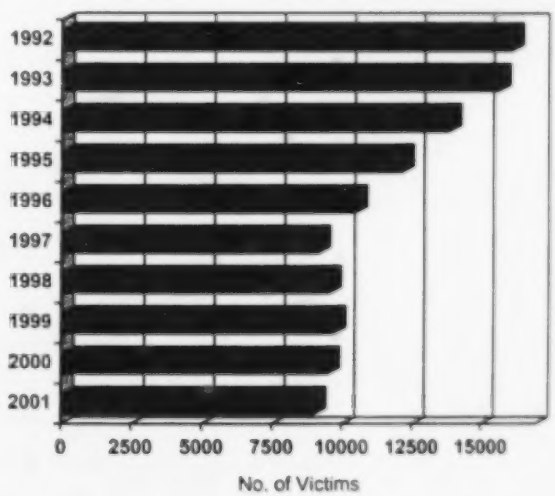
The total number of people killed and injured in traffic collisions decreased by 5.2% between 2000 and 2001 (9596 to 9096). The number killed in 2001 (94) was the second lowest figure in the 10-year period under review. Injured victims dropped by 5.1% between 2000 and 2001 (9485 to 9002). On average 25 people were injured each day.

Comparison of Collision Victims
Ten Year Summary
1992 – 2001

Killed



Injured

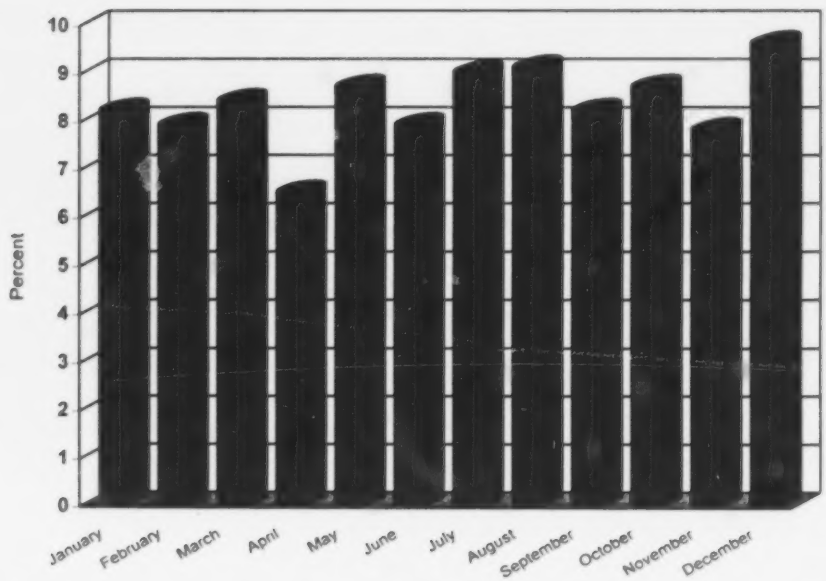


By Month of Occurrence and Injury Type
2001

Month	Injury Type		Total	%
	Killed	Injured		
January	4	740	744	8.2
February	5	711	716	7.9
March	14	748	762	8.4
April	6	587	593	6.5
May	6	789	795	8.7
June	4	718	722	7.9
July	8	807	815	9.0
August	5	821	826	9.1
September	8	740	748	8.2
October	9	787	796	8.7
November	13	692	705	7.8
December	12	862	874	9.6
Total	94	9002	9096	100.0

Fatalities peaked during the month of March (14) when 14.9% were killed and were at their lowest during January and June (4 each) when 4.3% died. The months of highest injury occurrence were July, August and December at 27.7%.

Distribution of Total Collision Victims
By Month of Occurrence
2001

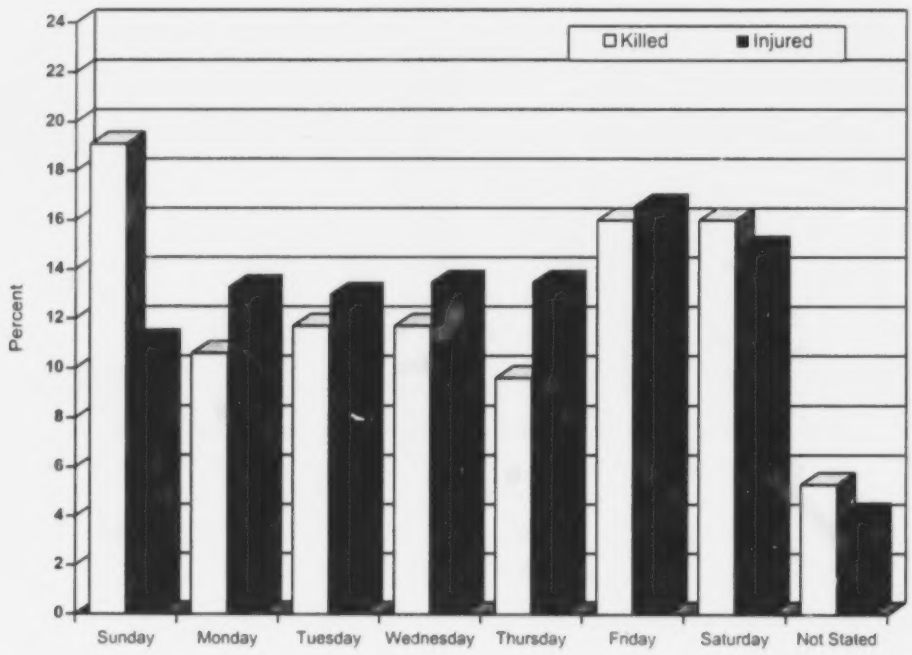


By Day of Occurrence and Injury Type
2001

Day	Injury Type		Total	%
	Killed	Injured		
Sunday	18	997	1015	11.1
Monday	10	1199	1209	13.3
Tuesday	11	1174	1185	13
Wednesday	11	1213	1224	13.5
Thursday	9	1215	1224	13.5
Friday	15	1495	1510	16.6
Saturday	15	1342	1357	14.9
Not Stated	5	367	372	4.1
Total	94	9002	9096	100.0

Fatalities peaked on Sunday when 19.1% (18) were killed and were at their lowest on Thursday at 9.6%. Injuries happened most often on Fridays and Saturdays (16.6% and 14.9% respectively), and least often on Sundays, at 11.1%.

Comparison of Collision Victims
by Injury Type and Day of Occurrence
2001

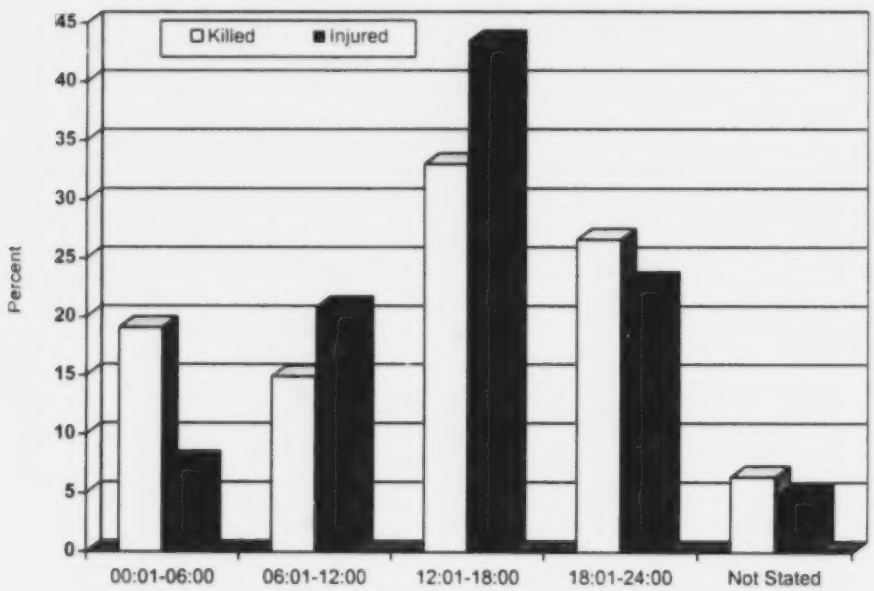


By Time of Occurrence and Injury Type
2001

Time	Injury Type		Total	%
	Killed	Injured		
00:01 - 06:00	18	690	708	7.8
06:01 - 12:00	14	1880	1894	20.8
12:01 - 18:00	31	3917	3948	43.4
18:01 - 24:00	25	2070	2095	23.0
Not Stated	6	445	451	5.0
Total	94	9002	9096	100.0

The highest incidence of casualties (43.4%) occurred within the time frame of 12:01 – 18:00 hours. More than half of the fatally injured victims (56 or 59.6%) were killed between 12 noon and 12 midnight.

Comparison of Collision Victims
by Injury Type and Time of Occurrence
2001

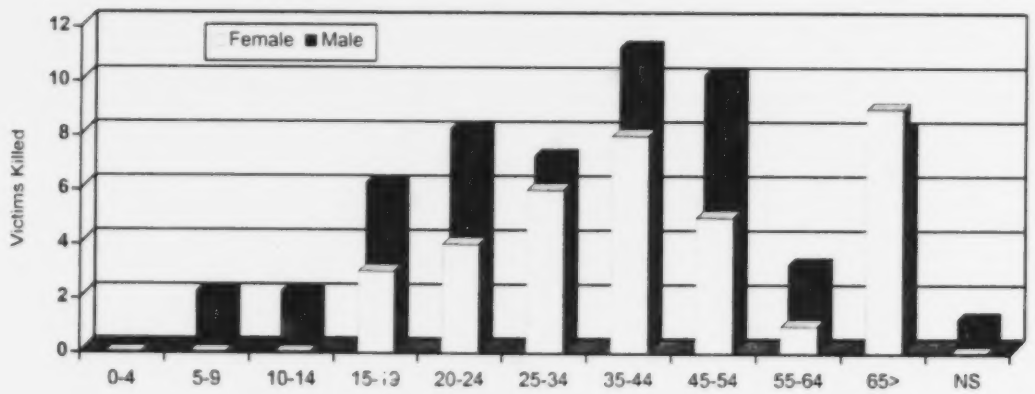


By Age Group, Injury Type, and Sex
2001

Age Group	Injury Type								Grand Total	Victims /1,000 Population[1]
	Killed				Injured					
	Male	Female	N.S.[2]	Total	Male	Female	N.S.[2]	Total		
0-4	0	0	0	0	65	62	0	127	127	1.8
5-9	2	0	0	2	115	97	0	212	214	2.7
10-14	2	0	0	2	119	145	0	264	266	3.2
15-19	6	3	0	9	553	637	0	1190	1199	14.9
20-24	8	4	0	12	477	508	0	985	997	13.7
25-34	7	6	0	13	679	740	0	1419	1432	10.0
35-44	11	8	0	19	601	764	0	1365	1384	7.8
45-54	10	5	0	15	473	617	1	1091	1106	7.1
55-64	3	1	0	4	262	308	0	570	574	5.7
65 >	8	9	0	17	305	325	0	630	647	4.1
N.S.[2]	1	0	0	1	539	610	0	1149	1150	
Total	58	36	0	94	4188	4813	1	9002	9096	8.1

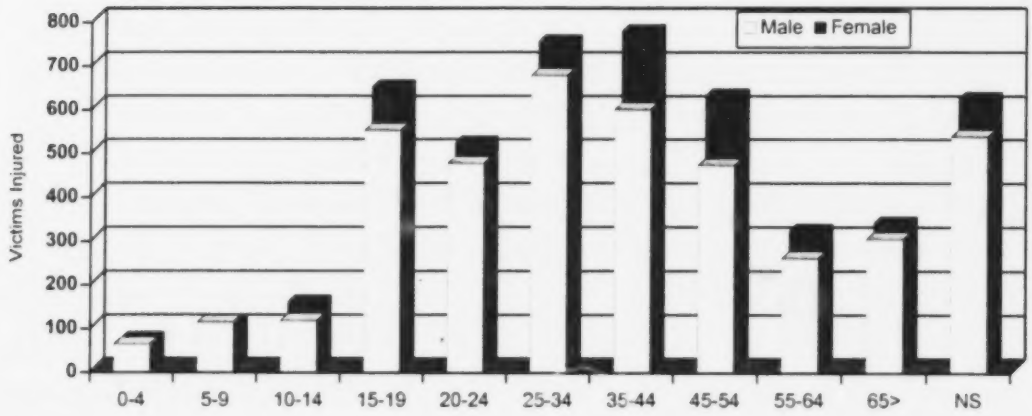
[1]Based on 2001 rounded-up census statistics from Statistics Canada.
[2]Not stated.

Comparison of Collision Victims Killed
by Age Group and Sex
2001



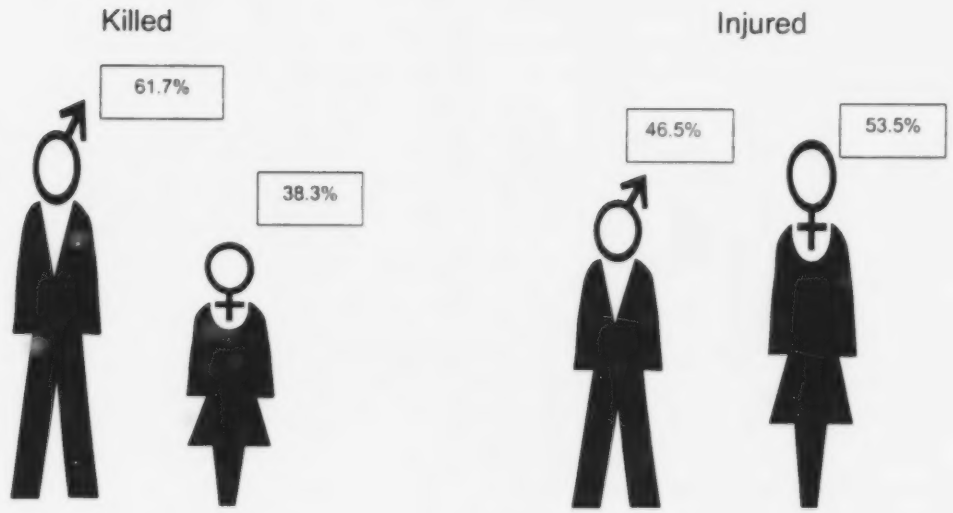
Male victims made up 61.7% (58) of all fatally injured victims, while females made up 38.3% (36). Of the total number of fatally injured males, the 35-44 (11 or 19.0%) and 45-54 (10 or 17.2%) incurred the largest number of fatalities. Among females, the age groups with the highest number killed were those 65 years or older (9 or 25.0%) and 35-44 (8 or 22.2%).

Comparison of Collision Victims Injured
by Age Group and Sex
2001



The number of female victims injured in all age groups is greater than for male victims except for the age groups 0-4 and 5-9 years of age. Of all injured victims, 53.5% were female and 46.5% were male.

Comparison of Total Collision Victims
by Injury Type and Sex
2001



Males are one-and-a-half times as likely to be fatally injured in collisions than are females.

Total Collision Victims Killed by Road User Class and Age Group 2001

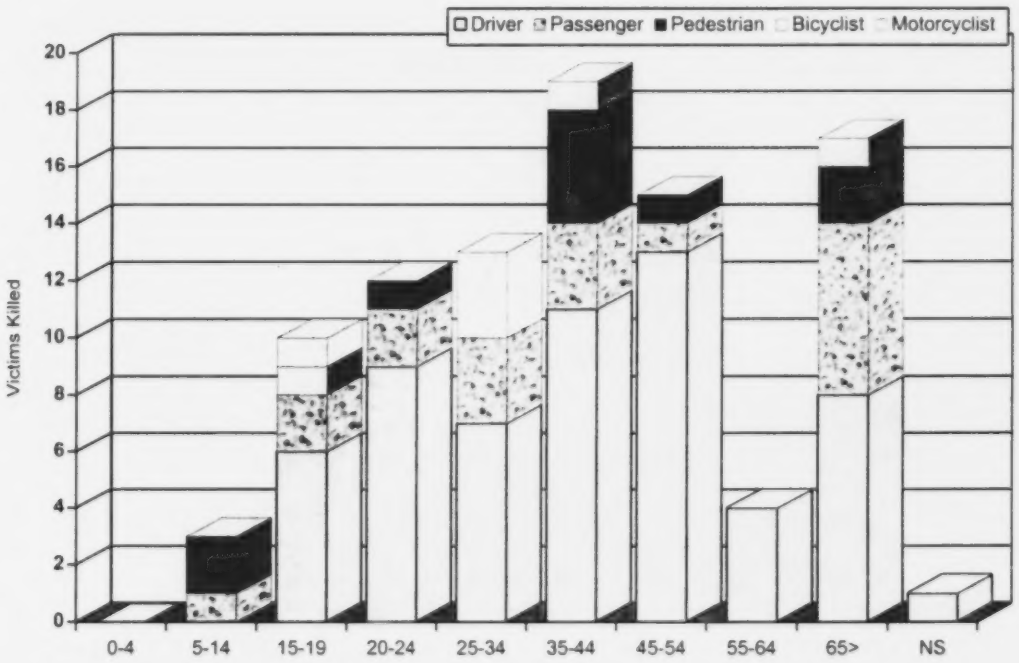
Road User Class	Age Group										Total	%
	0-4	5-14	15-19	20-24	25-34	35-44	45-54	55-64	65>	NS[1]		
Driver	0	0	6	9	7	11	13	4	8	1	59	62.8
Passenger	0	1	2	2	3	3	1	0	6	0	18	19.1
Pedestrian	0	2	0	1	0	4	1	0	2	0	10	10.6
Bicyclist	0	1	1	0	0	1	0	0	1	0	4	4.3
Motorcyclist[2]	0	0	0	0	3	0	0	0	0	0	3	3.2
Total	0	4	9	12	13	19	15	4	17	1	94	100.0

[1]NS means not stated. [2]Includes passengers.

Motor vehicle drivers accounted for 62.8% of the persons killed in traffic collisions, while passengers accounted for 19.1%. Pedestrians comprised the third largest group of road users killed (10.6%), followed by bicyclists (4.3%).

The 35-44 age group accounted for 20.2% of fatally injured road users, followed by the 65 years and older age group at 18.1%. Among road users in the 15-19 year old category, drivers and passengers were the two road-user classes that were most often killed at 88.9%. Among persons aged 65 years or older who were killed in traffic collisions, motor vehicle drivers were most often killed (47.1%), followed by passengers at 35.3%.

Comparison of Collision Victims Killed by Road User Class and Age Group 2001



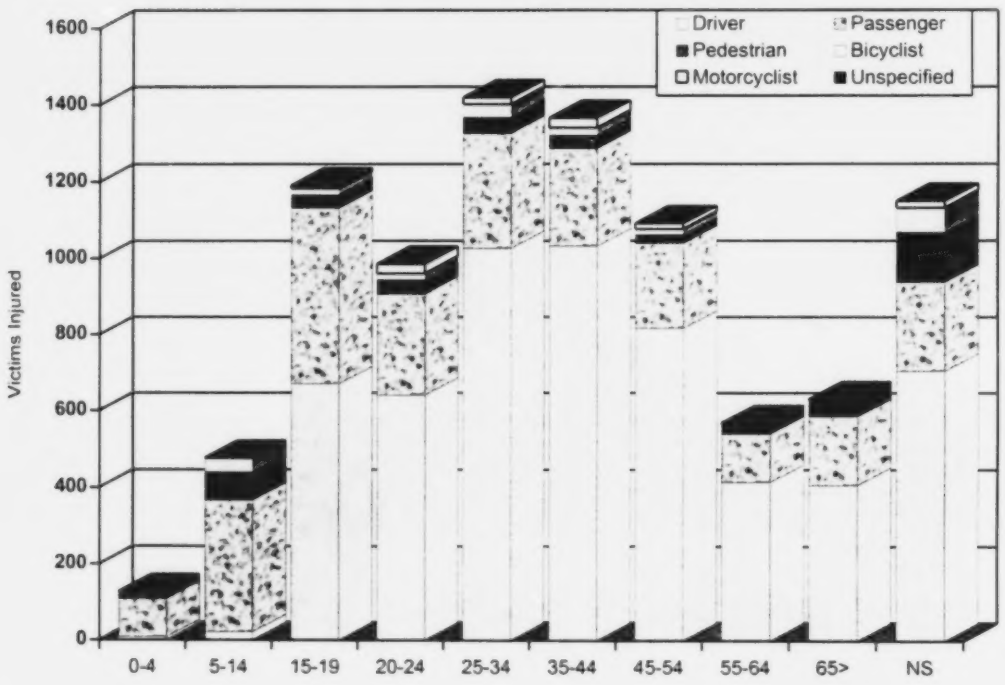
Total Collision Victims Injured by Road User Class and Age Group 2001

Road User Class	Age Group										Total	%
	0-4	5-14	15-19	20-24	25-34	35-44	45-54	55-64	65>	NS[1]		
Driver	8	22	670	640	1026	1032	817	414	406	704	5739	63.8
Passenger	100	344	461	266	299	254	222	125	178	233	2482	27.6
Pedestrian	18	75	35	38	43	35	23	22	40	131	460	5.1
Bicyclist	1	35	16	16	33	19	15	4	4	64	207	2.3
Motorcyclist[2]	0	0	8	25	18	25	14	3	2	17	112	1.2
Unspecified	0	0	0	0	0	0	0	2	0	0	2	-.-
Total	127	476	1190	985	1419	1365	1091	570	630	1149	9002	100.0

[1]NS means not stated. [2]Includes passengers.

Motor vehicle drivers and passengers accounted for 91.4% of road users injured. The remaining injured road users were distributed as follows: pedestrians 5.1%, bicyclists 2.3%, and motorcyclists 1.2%. The 25-34 age group accounted for 15.8% of road users injured, followed by the 35-44 age group, at 15.2%.

Comparison of Collision Victims Injured by Road User Class and Age Group 2001



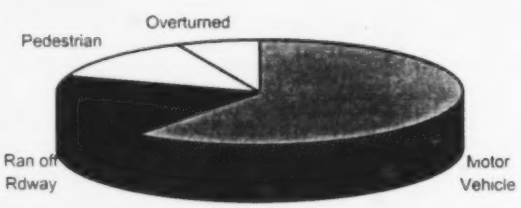
By Collision and Injury Type
2001

Collision Type	Injury Type		Total	%
	Killed	Injured		
Pedestrian	10	465	475	5.2
Motor Vehicle	46	6369	6415	70.5
Train	1	17	18	0.2
Motorcycle	3	102	105	1.2
Bicycle	4	213	217	2.4
Animal	2	228	230	2.5
Fixed Object	4	375	379	4.2
Other Object	4	60	64	0.7
Overturned	5	120	125	1.4
Ran Off Roadway	15	1044	1059	11.6
Other Non-Collision	0	9	9	0.1
Total	94	9002	9096	100.0

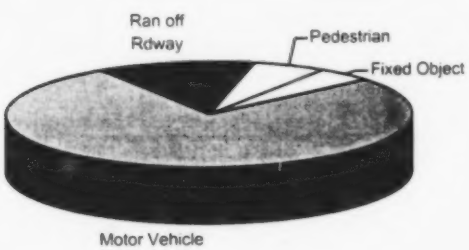
"Motor vehicle to motor vehicle" collisions accounted for 70.5% (6415) of the total collision victims, 48.9% (46) of fatally injured victims, and 70.7% (6369) of injured victims. A further 11.6% of all casualties were involved in "ran off roadway" collisions, followed by "pedestrian" collisions (5.2%).

Distribution of Top Four Collision Types
By Killed and Injured
2001

Killed



Injured

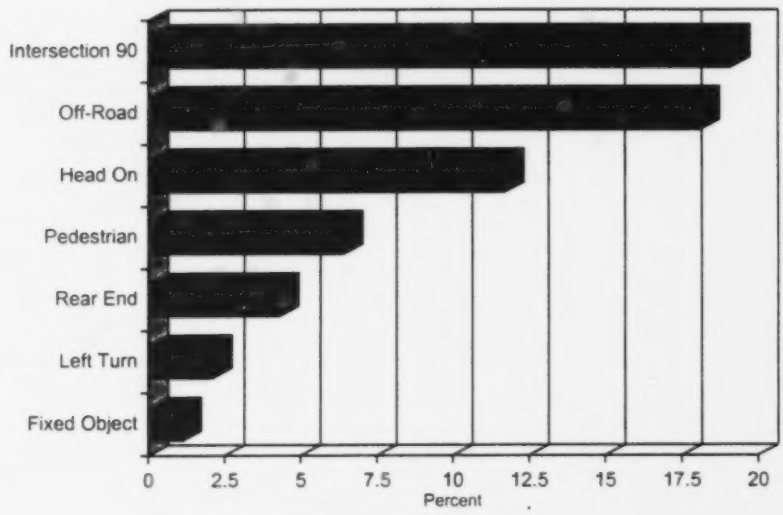


By Accident Configuration and Injury Type
2001

Configuration	Injury Type		Total	%
	Killed	Injured		
Rear End	4	2639	2643	29.1
Head On	11	172	183	2.0
Side Swipe	0	92	92	1.0
Side Swipe	0	212	212	2.3
Overtaking	0	65	65	0.7
Right Turn	0	34	34	0.3
Right Turn	0	20	20	0.2
Left Turn	0	107	107	1.2
Left Turn	1	55	56	0.6
Left Turn	1	534	535	5.9
Intersection 90°	18	1562	1580	17.4
Off-Road Right	9	546	555	6.1
Off-Road Left	8	421	429	4.7
Fixed Object	1	223	224	2.5
Parking	0	36	36	0.4
Pedestrian	6	376	382	4.2
Other [1]	35	1908	1943	21.4
Total	94	9002	9096	100.0

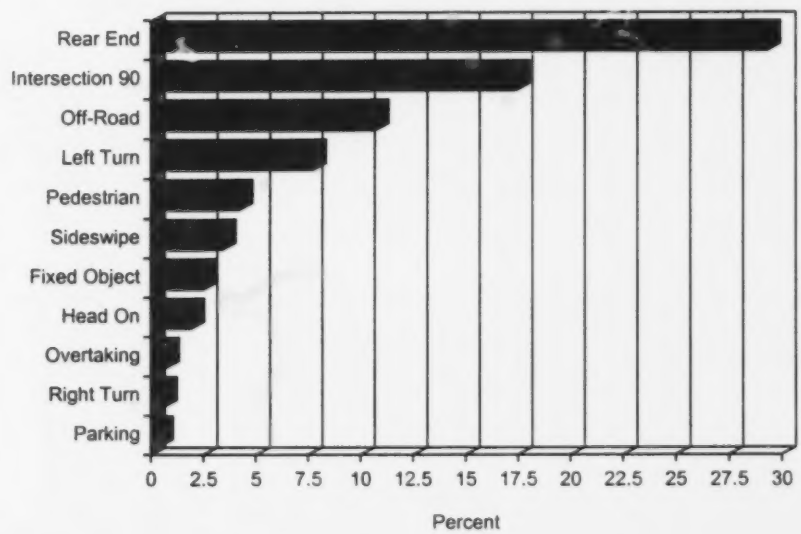
[1]Accidents with more than two vehicles involved or more than one configuration noted.

Distribution of Collision Victims Killed by Accident Configuration*
2001



Most fatalities occurred in "intersection 90^0", "off-road, left and right", and "head on" accident configurations. "Off-road, right or left" configuration involves a single vehicle entering the right-hand ditch or a vehicle crossing the road and entering the left-hand ditch. Injury severity may be higher in these "off-road" collisions because of the vehicle rolling over after entering the ditch.

Distribution of Collision Victims Injured by Accident Configuration*
2001



*Other category not graphically presented as the configuration usually refers to accidents involving more than two vehicles or more than one configuration.

Injuries occurred most often in "rear-end" (29.3%) and "intersection 90^0" (17.4%) accident configurations and least often in "parking" configurations.

By Vehicle Defect and Injury Type
2001

Vehicle Defect	Injury Type		Total	%
	Killed	Injured		
No Apparent Defect	32	5073	5105	56.1
Defective Brakes	0	14	14	0.1
Defective Steering	0	3	3	-.-
Defective Headlights	0	1	1	-.-
Defective Brake Lights	0	0	0	0.0
Defective Lighting (Unspecified)	0	0	0	0.0
Defective Engine Control/Drive Train	0	5	5	0.1
Defective Suspension/Wheels	0	6	6	0.1
Defective Tires	0	26	26	0.3
Defective Tow Hitch/Yoke	0	0	0	0.0
Defective Exhaust System	0	0	0	0.0
Hood/Tailgate/Door/Covering Opened	0	0	0	0.0
Defective Glazing (Obscured Windows)	0	1	1	-.-
Vehicle Modifications	0	0	0	0.0
Fire	1	6	7	0.1
Overloaded/Oversized	0	0	0	0.0
Load Shifted/Spilled	0	9	9	0.1
Jack-Knife/Trailer Swing	0	1	1	-.-
Hydroplaning of Tires	0	1	1	-.-
Not Stated	61	3856	3917	43.1
Total	94	9002	9096	100.0

One victim was killed and 73 were injured in vehicles that had an apparent defect at the time of collision occurrence. The top three reported vehicle defects were "defective tires" (26), "defective brakes" (14), and "load shifted/spilled" (9).

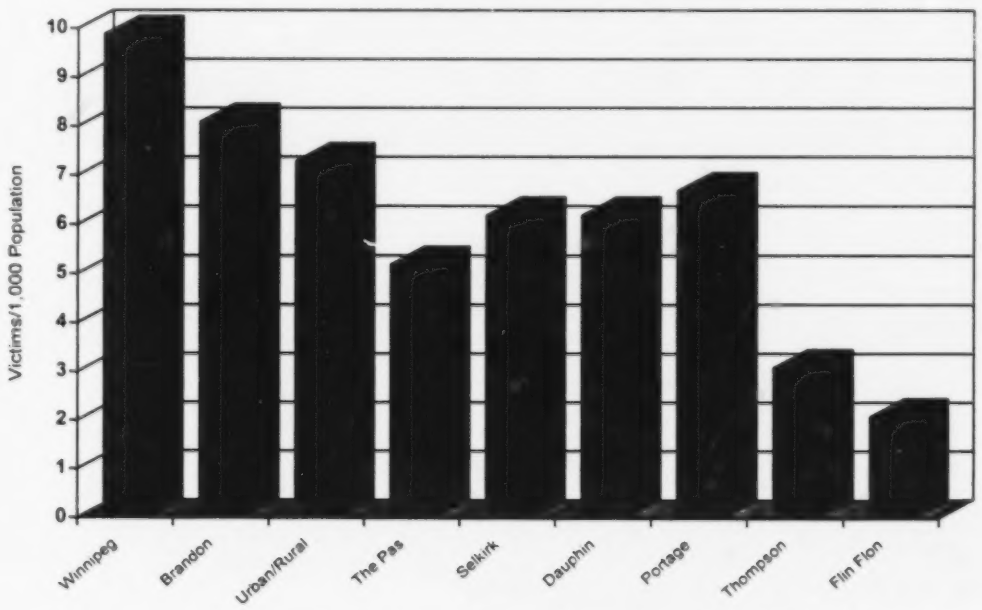
By Provincial Location and Injury Type
2001

Location	Injury Type		Total	%	Victims /1,000 Population[1]
	Killed	Injured			
Winnipeg	18	5620	5638	62.0	9.1
Brandon	1	227	228	2.5	5.7
Portage la Prairie	0	63	63	0.7	4.8
Flin Flon	0	10	10	0.1	1.7
Dauphin	1	25	26	0.3	3.2
Thompson	0	63	63	0.7	4.8
The Pas	0	29	29	0.3	5.0
Selkirk	0	48	48	0.5	4.9
Other Urban	1	575	576	6.3	7.3
Rural	73	2342	2415	26.6	
Total	94	9002	9096	100.0	8.1

[1]Based on 2001 rounded-up census statistics from Statistics Canada.

Traffic accidents within the City of Winnipeg accounted for 62.0% (5638) of the total collision victims. Other communities accounted for 11.4% (1043) of the total collision victims and rural areas 26.6% (2415). Rural areas accounted for 77.7% (73) of all fatally injured collision victims. One reason for the nearly 6 to 1 ratio between rural and urban fatalities was the much higher speeds on rural roadways (90 to 100 km/h) versus urban areas (50 to 60 km/h). Higher roadway speeds increase the likelihood of fatal injuries.

Distribution of Total Collision Victims
by Provincial Location /1,000 Population
2001



By Safety Equipment and Ejection
Fatal Vehicle Occupant Victims[1]

2001

Safety Equipment	Victims	%	Ejected	Partially Ejected
Lap Belt Installed – In Use	2	2.2		
Lap Belt Installed – Not In Use	2	2.2		
Shoulder Belt Installed – In Use	1	1.1		
Shoulder Belt Installed – Not In Use	2	2.2		
Lap/Shoulder Belt Assembly – In Use	17	19.2	1	1
Combined Belt Assembly Installed – Not in Use	25	28.2	12	
Safety Seat Improperly Installed – In Use	1	1.1		
Air Bag Deployed/Safety Belt In Use	4	4.5		
Air Bag Deployed/Safety Belt Not In Use	2	2.2	1	
Safety Seat Installed/Not in Use	1	1.1	1	
Unknown	32	36.0		
Total	89	100.0	15	1

[1]Fatal vehicle occupant victim category excludes pedestrians, motorcyclists and bicyclists.

Of the total fatal vehicle occupant victims, 32 or 36.0% were known not to be wearing a safety device at time of collision occurrence.

A total of 16.9% (15) of fatal injured victims were ejected from the vehicle. Of these, only one was known to have been using safety equipment. The single partially ejected victim had been using a lap/shoulder belt assembly.

Section 6

Pedestrian Victims

INTRODUCTION TO SECTION 6

This section deals with pedestrians killed and injured in traffic collisions. Month, hour and day occurrences are examined. Attention is focussed on the age of the pedestrian and the most frequently reported actions prior to being struck.

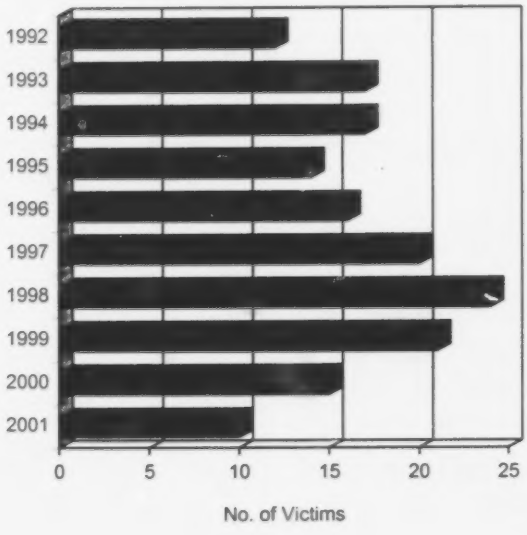
Ten Year Summary
1992 – 2001

Year	Injury Type		Total
	Killed	Injured	
1992	12	771	783
1993	17	711	728
1994	17	634	651
1995	14	650	664
1996	16	535	551
1997	20	481	501
1998	24	496	520
1999	21	504	525
2000	15	484	499
2001	10	460	470

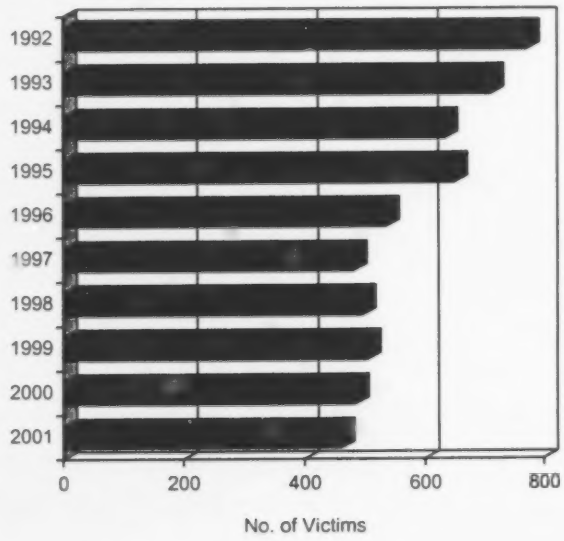
There were 460 pedestrians injured in traffic collisions during 2001, a decrease of 5.0% from 2000. The number of pedestrians killed fell by 33.3% from 15 in 2000 to 10 in 2001.

Comparison of Pedestrian Victims
1992 – 2001

Killed



Injured

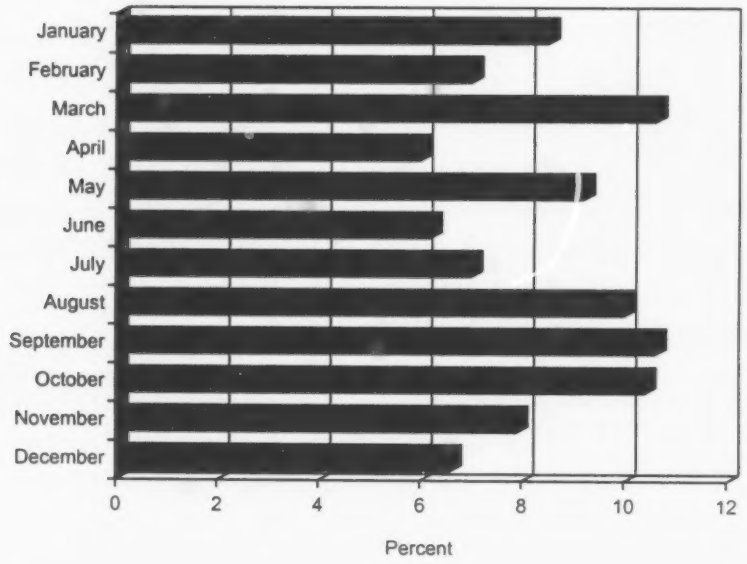


By Month of Occurrence and Injury Type
2001

Month	Injury Type		Total	%
	Killed	Injured		
January	0	40	40	8.5
February	0	33	33	7.0
March	2	48	50	10.6
April	1	27	28	6.0
May	0	43	43	9.2
June	1	28	29	6.2
July	0	33	33	7.0
August	2	45	47	10.0
September	1	49	50	10.6
October	1	48	49	10.4
November	0	37	37	7.9
December	2	29	31	6.6
Total	10	460	470	100.0

Two pedestrian fatalities were recorded in each of the months of March, August, and December. September and March accounted for the highest number of total pedestrian victims with 50, followed by October with 49.

Distribution of Total Pedestrian Victims
by Month of Occurrence
2001



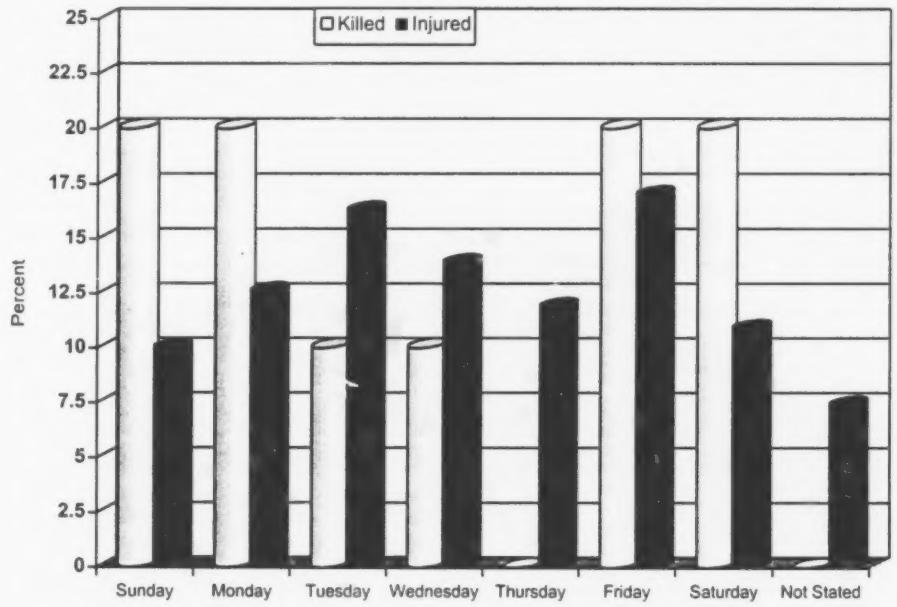
By Day of Occurrence and Injury Type
2001

Day	Injury Type		Total	%
	Killed	Injured		
Sunday	2	46	48	10.2
Monday	2	58	60	12.8
Tuesday	1	75	76	16.2
Wednesday	1	64	65	13.8
Thursday	0	55	55	11.7
Friday	2	78	80	17.0
Saturday	2	50	52	11.1
Not Stated	0	34	34	7.2
Total	10	460	470	100.0

Pedestrian fatalities were evenly distributed between Friday and Monday (2 each) and did not occur on Thursday. One pedestrian fatality occurred Tuesday and also on Wednesday.

Pedestrian injuries happened most often on Fridays and Wednesdays (17.0% and 16.3% respectively), and least often on Sundays, at 10.0%.

Comparison of Pedestrian Victims
by Day of Occurrence and Injury Type
2001

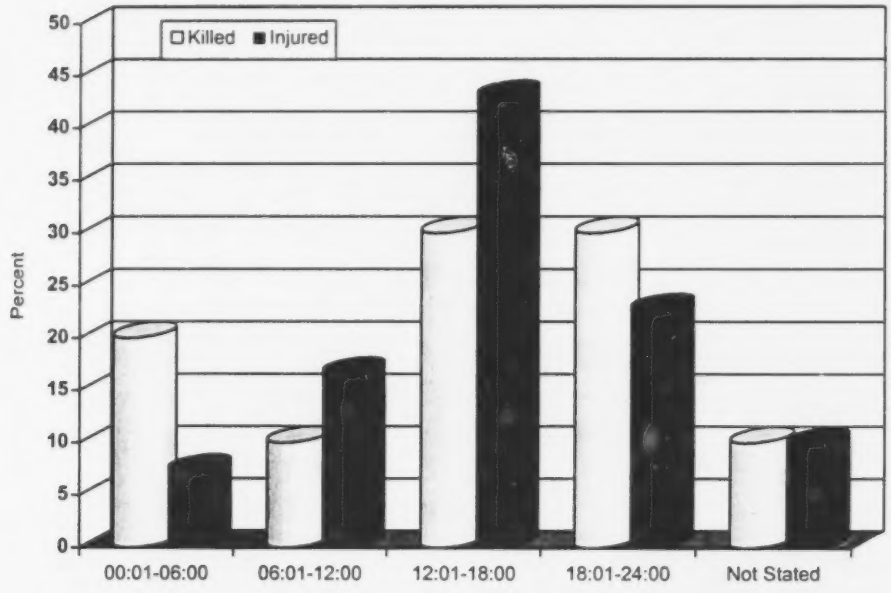


By Time of Occurrence and Injury Type
2001

Time	Injury Type		Total	%
	Killed	Injured		
00:01 - 06:00	2	34	36	7.6
06:01 - 12:00	1	77	78	16.6
12:01 - 18:00	3	198	201	42.8
18:01- 24:00	3	105	108	23.0
Not Stated	1	46	47	10.0
Total	10	460	470	100.0

The time period 12:01-18:00 hours accounted for 42.8% (201) of the total number of pedestrian collision victims. The time periods 12:01-18:00 and 18:01 – 24:00 hours had the highest number of pedestrian victims killed, 3 each or 30.0%.

Comparison of Pedestrian Victims
by Time of Occurrence and Injury Type
2001

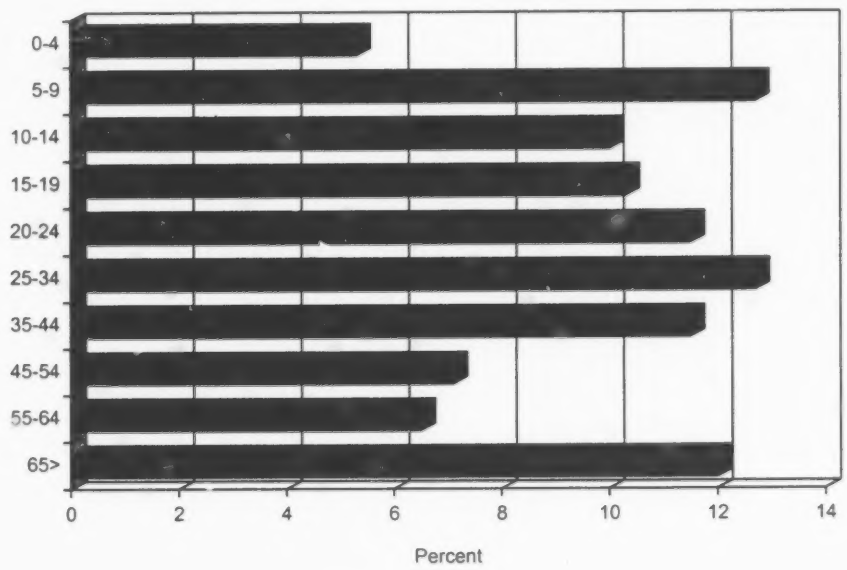


By Age Group and Injury Type
2001

Age Group	Injury Type		Total	%
	Killed	Injured		
0-4	0	18	18	3.8
5-9	1	42	43	9.2
10-14	1	33	34	7.2
15-19	0	35	35	7.4
20-24	1	38	39	8.3
25-34	0	43	43	9.2
35-44	4	35	39	8.3
45-54	1	23	24	5.1
55-64	0	22	22	4.7
65>	2	40	42	8.9
Not Stated	0	131	131	27.9
Total	10	460	470	100.0

Of the total number of pedestrians killed, 40.0% (4) were 35-44, followed by 20.0% (2) over the age of 65. By contrast, only 20.2% of the *total fatally injured victims* fall into the 35-44 and 18.9% into the over 65 age group. Children are over-represented as pedestrian victims. Children (0-14) comprised 20.0% of the total fatally injured pedestrians, compared to 4.3% *of all fatally injured collision victims*. As well, this age group made up 20.2% of pedestrians injured, compared to 6.7% *of all injured collision victims*.

Distribution of Total Pedestrian Victims
by Known Age Group
2001



By Pedestrian Action and Injury Type
2001

Pedestrian Action	Injury Type		Total	%
	Killed	Injured		
At Intersection, crossing with right-of-way	2	94	96	20.4
At Intersection, crossing without right-of-way	0	27	27	5.7
At Intersection, crossing, no traffic control	0	6	6	1.3
Between Intersections, crossing roadway	0	60	60	12.8
Walking along roadway with traffic	1	6	7	1.5
Walking along roadway against traffic	0	3	3	0.6
On Sidewalk/Median/Safety Zone	0	4	4	0.9
Walking on roadway (travelled portion)	1	15	16	3.4
From behind Vehicle/Object on roadside	0	15	15	3.2
Running into roadway	1	53	54	11.5
Pushing/Working on vehicle	0	0	0	0.0
Getting on/off another vehicle	0	1	1	0.2
Playing on roadway	1	6	7	1.5
Working on roadway	0	2	2	0.4
Lying on roadway	0	1	1	0.2
Unknown	4	167	171	36.4
Total	10	460	470	100.0

Twenty percent of pedestrian victims were killed at intersections and had the right-of-way while 40.0% had been "walking/running/playing on roadway". Among injured pedestrians, 20.4% had been injured while crossing an intersection with the right-of-way while 13.0% sustained injuries while crossing a road between intersections.

By Pedestrian Action and Age Group
2001

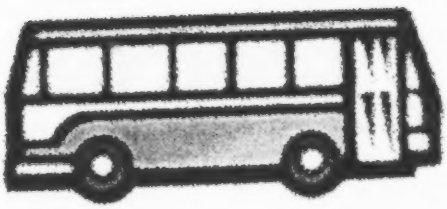
Pedestrian Action	Age Group											Total
	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65>	NS	
At Intersection, crossing with right-of-way	2	1	6	6	13	14	8	9	5	13	19	96
At Intersection, crossing without right-of-way	0	2	4	2	3	1	2	1	2	1	9	27
At Intersection, crossing with no traffic control	0	0	0	0	0	1	0	0	1	1	3	6
Between Intersections, crossing roadway	1	6	5	3	2	5	7	3	0	13	15	60
Walking along roadway with traffic	0	0	0	0	0	0	1	1	3	1	1	7
Walking along roadway against traffic	0	0	0	0	0	1	0	0	1	0	1	3
On Sidewalk/Median/Safety Zone	0	0	0	0	0	2	1	0	0	0	1	4
Walking on Roadway (travelled portion)	0	1	2	4	0	1	3	0	0	1	4	16
From behind Vehicle/ Object on roadway	0	5	1	0	0	2	1	1	1	0	4	15
Running into Roadway	10	16	4	4	3	4	1	1	3	0	8	54
Getting On/Off Another Vehicle	0	0	0	0	0	0	0	1	0	0	0	1
Pushing/Working on Vehicle	0	0	0	0	0	0	0	0	0	0	0	0
Playing on Roadway	1	2	1	2	0	0	0	0	0	0	1	7
Working on Roadway	0	0	0	0	0	0	1	0	0	0	1	2
Lying on Roadway	0	0	0	0	1	0	0	0	0	0	0	1
Unknown	4	10	11	14	17	12	14	7	6	12	64	171
Total	18	43	34	35	39	43	39	24	22	42	131	470
%	3.8	9.2	7.2	7.4	8.3	9.2	8.3	5.1	4.7	8.9	27.9	100.0

Among all pedestrian casualties aged 15 and older, the two most frequently reported pedestrian actions prior to being struck by a motor vehicle were "crossing at intersections with right-of-way" and "crossing roadway between intersections".

Among pedestrians four years of age and younger, the most frequently cited pedestrian actions were "running into roadway" and "crossing intersection with right-of-way". Of the total 5-9 and 10-14 year old pedestrians, "running into the roadway" and "crossing roadway between intersections" were the most frequently reported actions.

Section 7

Vehicle Involvement



INTRODUCTION TO SECTION 7

This section deals with the number of vehicles involved in collisions. It does **not** indicate the number of collisions. Since many collisions involve more than one vehicle, it can be expected that the total number of vehicles involved in collisions will significantly exceed the total number of collisions.

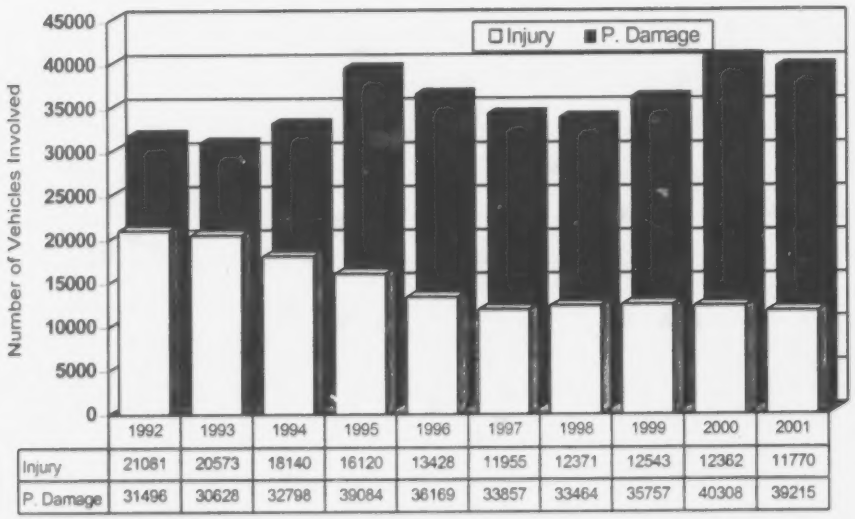
Each vehicle involved in a collision is counted and provision is made for vehicle type (for example, automobiles, vans, pick-up trucks, types of emergency vehicles). A count is also provided of the number of vehicles involved in collisions that were, or were not, transporting hazardous loads. The nature of these loads is also indicated.

Ten Year Summary
1992 – 2001

Year	Collision Type			Total
	Fatal	Injury	P. Damage	
1992	164	21081	31496	52741
1993	161	20573	30628	51362
1994	161	18140	32798	51099
1995	188	16120	39084	55392
1996	115	13428	36169	49712
1997	147	11955	33857	45959
1998	170	12371	33464	46005
1999	157	12543	35757	48457
2000	140	12362	40308	52810
2001	138	11770	39215	51123

There were 138 vehicles involved in fatal traffic collisions during 2001, a decrease of 1.4% from 2000. The number of vehicles involved in injury and property damage decreased by 4.8% (12,362 to 11,770) and 2.7% (40,308 to 39,215).

Ten Year Summary
Vehicle Involvement by Injury and Property Damage Collision Type
1992 – 2001*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Injury	21081	20573	18140	16120	13428	11955	12371	12543	12362	11770
P. Damage	31496	30628	32798	39084	36169	33857	33464	35757	40308	39215

*Fatal statistics not shown due to low values.

By Vehicle Type and Collision Type
2001

Vehicle Type	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Automobile	66	8036	26519	34621	67.7
Mini/Multi-Purpose Van	13	1081	3686	4780	9.3
Van under 4500 kg	4	247	964	1215	2.4
Pick-up under 4500 kg	26	1485	6117	7628	14.9
Truck over 4500 kg (unit chassis)	4	141	494	639	1.2
Power Unit for Semi-Trailer	12	118	375	505	1.0
Truck/Camper	0	6	27	33	0.1
Motorhome	0	1	19	20	-.-
Truck (other)	3	207	656	866	1.7
School Bus	0	12	41	53	0.1
Other School Vehicle	0	0	0	0	0.0
Transit Bus – urban	0	28	35	63	0.1
Para-transit Bus	0	0	5	5	-.-
Intercity Bus	0	21	59	80	0.2
Bus (other)	0	5	14	19	-.-
Motorcycle/Scooter	2	108	59	169	0.3
Moped	0	2	2	4	-.-
Bicycle	4	215	17	236	0.5
Ambulance	0	7	17	24	0.1
Fire	0	6	8	14	-.-
Police	1	12	29	42	0.1
Mobility Vehicle	0	0	0	0	0.0
Snow Vehicle	0	0	1	1	-.-
Farm Equipment	1	4	19	24	0.1
Construction Equipment	0	8	42	50	0.1
Train/Other Rail Vehicle	0	0	0	0	0.0
Off-Road Vehicle	2	20	10	32	0.1
Total	138	11770	39215	51123	100.0

Automobiles, vans and pick-up trucks were involved in 79.0% of fatal collisions, 92.2% of injury collisions and 95.1% of property damage collisions. Vehicles involved in fatal and injury crashes *display different patterns.* Automobiles were involved in considerably more injury collisions (68.2%) than fatal crashes (47.8%). Conversely, a higher percentage of light trucks/vans were involved in more fatal collisions 31.2% than in injury collisions, at 23.9%. Heavy trucks/tractor trailers were involved in fatal collisions almost five times more often than in injury collisions (11.6% versus 2.2%).

By Hazardous Load Type and Collision Type
2001

Hazardous Load	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Explosives	0	4	14	18	0.1
Flammable Gas	0	7	32	39	0.1
Flammable/Combustible Liquids	2	12	8	22	0.1
Flammable Solids/Dangerous When Wet	0	1	3	4	-.-
Oxidizers/Organic Peroxides	0	2	0	2	-.-
Poisonous Substances/Infectious	0	1	0	1	-.-
Radioactives	0	0	0	0	-.-
Corrosives	0	0	5	5	-.-
Miscellaneous Dangerous Substances	0	1	8	9	-.-
General Cargo (non-hazardous)	5	117	393	515	1.0
Empty	2	50	113	165	0.3
Not Applicable	129	11539	38502	50170	98.1
Other	0	1	0	1	-.-
Unknown	0	35	137	172	0.3
Total	138	11770	39215	51123	100.0

Of the total number of vehicles involved in traffic accidents, 100 were known to be carrying "hazardous goods". Two of these vehicles were involved in fatal collisions, 28 resulted in injury, and 70 resulted in property damage collisions.

Section 8

Driver Involvement

INTRODUCTION TO SECTION 8

This section indicates the number of drivers involved in collisions. This is less than the number of vehicles involved as some collisions involve parked vehicles. Information is provided according to gender and age group.

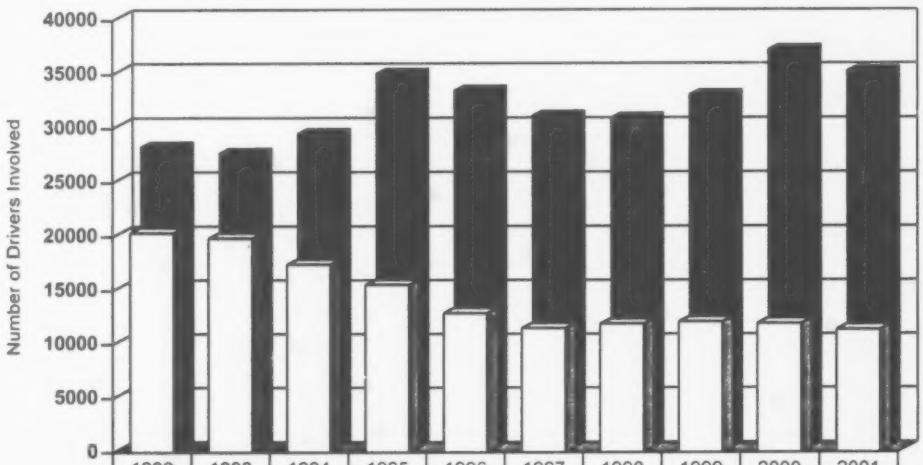
While the age groups 25-34, 35-44, and 45-54 each accounted for a greater percentage of drivers involved in collisions than the age group 16-19, the latter group had the highest rate of collision involvement, at 115 per 1,000 active licenced drivers.

Ten Year Summary
1992 – 2001

Year	Collision Type			Total
	Fatal	Injury	P. Damage	
1992	152	20344	27847	48343
1993	150	19852	27258	47260
1994	152	17421	29078	46651
1995	171	15530	34618	50319
1996	110	12891	33019	46020
1997	142	11487	30695	42324
1998	164	11908	30506	42578
1999	151	12096	32615	44862
2000	136	11943	36780	48859
2001	127	11377	34820	46324

There were 127 drivers involved in fatal accidents in 2001, a decrease of 6.6% from the 136 involved in 2000. The number of drivers involved in injury collisions decreased by 4.7% from 11,943 in 2000 to 11,377 in 2001. Drivers involved in property damage collisions also dropped from 36,780 to 34,820, a 5.3% decrease.

Ten Year Summary of Driver Involvement in Traffic Collisions by Injury and Property Damage Collision Type
1992 – 2001*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Injury	20344	19852	17421	15530	12891	11487	11908	12096	11943	11377
P.Damage	27847	27258	29078	34618	33019	30695	30506	32615	36780	34820

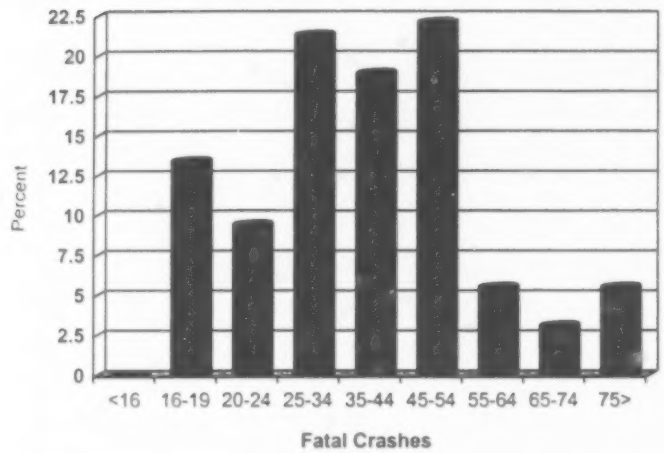
* Fatal statistics not shown due to low values.

By Age Group, Sex, and Collision Type
2001

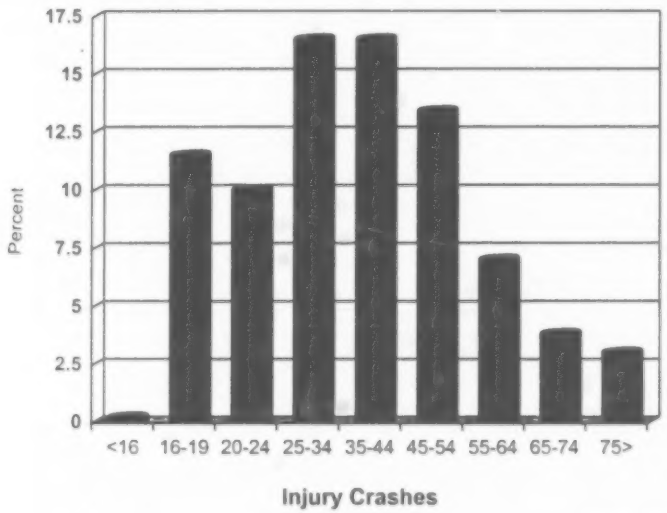
Age Group	Sex	Collision Type						Total	%
		Fatal	%	Injury	%	P. Damage	%		
<16	M	0		12		38		50	
	F	0		14		35		49	
	NS	0		1		1		2	
	Total	0	0.0	27	0.2	74	0.2	101	0.2
16-19	M	13		729		2455		3197	
	F	4		568		1317		1889	
	NS	0		11		20		31	
	Total	17	13.4	1308	11.5	3792	10.9	5117	11.1
20-24	M	9		653		2058		2720	
	F	3		477		1128		1608	
	NS	0		10		32		42	
	Total	12	9.4	1140	10.0	3218	9.2	4370	9.4
25-34	M	21		1061		2915		3997	
	F	6		797		1637		2440	
	NS	0		18		44		62	
	Total	27	21.3	1876	16.5	4596	13.2	6499	14.0
35-44	M	18		1039		3286		4343	
	F	6		833		1974		2813	
	NS	0		7		27		34	
	Total	24	18.9	1879	16.5	5287	15.2	7190	15.5
45-54	M	20		882		2806		3708	
	F	8		634		1595		2237	
	NS	0		7		7		14	
	Total	28	22.1	1523	13.4	4408	12.7	5959	12.9
55-64	M	5		481		1625		2111	
	F	2		304		813		1119	
	NS	0		4		9		13	
	Total	7	5.5	789	7.0	2447	7.0	3243	7.0
65-74	M	1		276		1110		1387	
	F	3		155		462		620	
	NS	0		3		5		8	
	Total	4	3.1	434	3.8	1577	4.5	2015	4.4
75>	M	6		231		701		938	
	F	1		108		336		445	
	NS	0		4		13		17	
	Total	7	5.5	343	3.0	1050	3.0	1400	3.0
Not Stated	M	0		184		603		787	
	F	0		81		350		431	
	NS	1		1793		7418		9212	
	Total	1	0.8	2058	18.1	8371	24.1	10430	22.5
All Ages	M	93		5548		17597		23238	
	F	33		3971		9647		13651	
	NS	1		1858		7576		9435	
	Total	127	100.0	11377	100.0	34820	100.0	46324	100.0

Male drivers were involved in collisions more often than their female counterparts – 2.8 times more frequently in fatal collisions, 1.4 times more frequently in injury collisions and 1.8 times more frequently in property damage collisions.

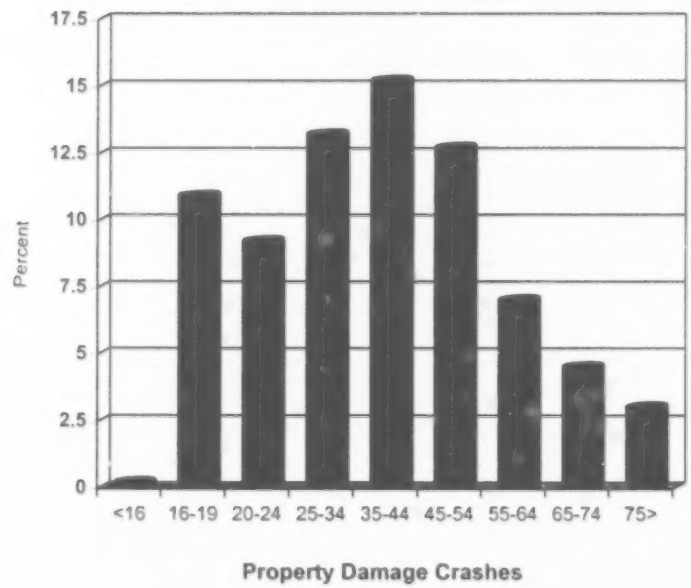
Percentage of Driver Involvement in Crashes (excludes "age not stated")



Of the total drivers involved in fatal crashes the age group 45-54 had the highest involvement (22.1%) followed by the 25-34 age group at 21.3%.



Of the total drivers involved in injury-producing crashes, the age groups 25-34 and 35-44 had the highest involvement at 16.5% each.



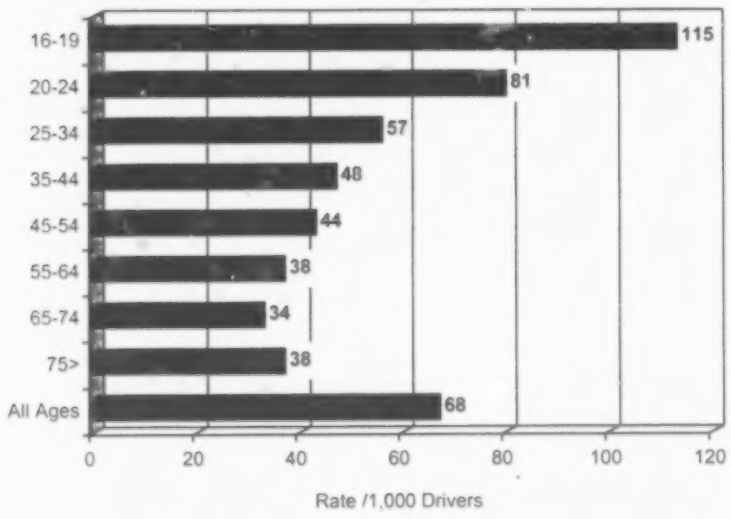
Of the total drivers involved in property damage collisions, the age groups 35-44 and 25-34 had the highest involvement at 15.2% and 13.2% respectively.

By Age Group, Sex and Relative Involvement /1,000 Active Drivers 2001

Age Group	Sex	Total Drivers Involved	%	Total Active Licenced Drivers	%	Relative Involvement Rate /1,000
<16	M	50		0		
	F	49		0		
	NS	2		0		
	Total	101	0.2	0	0.0	
16-19	M	3197		23661		135
	F	1889		20925		90
	NS	31		0		
	Total	5117	11.1	44586	6.6	115
20-24	M	2720		28328		96
	F	1608		25862		62
	NS	42		0		
	Total	4370	9.4	54190	8.0	81
25-34	M	3997		59936		67
	F	2440		54583		45
	NS	62		0		
	Total	6499	14.0	114519	16.9	57
35-44	M	4343		78066		56
	F	2813		70347		40
	NS	34		0		
	Total	7190	15.5	148413	21.9	48
45-54	M	3708		71677		52
	F	2237		63299		35
	NS	14		0		
	Total	5959	12.9	134976	19.9	44
55-64	M	2111		46720		45
	F	1119		39349		28
	NS	13		0		
	Total	3243	7.0	86069	12.6	38
65-74	M	1387		32644		42
	F	620		26047		24
	NS	8		0		
	Total	2015	4.4	58691	8.6	34
75>	M	938		21349		44
	F	445		15823		28
	NS	17		0		
	Total	1400	3.0	37172	5.5	38
Not Stated	M	787		0		
	F	431		0		
	NS	9212		0		
	Total	10430	22.5	0	0.0	0
All Ages	M	23238		362381		64
	F	13651		316235		43
	NS	9435		0		
	Total	46324	100.0	678616	100.0	68

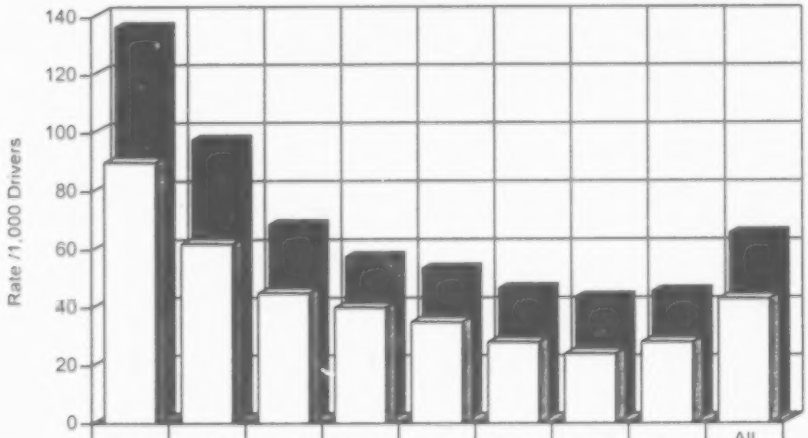
Certain age groups are over-represented in crashes. For example, 16-19 year olds made up 6.6% of the total active licenced drivers, yet accounted for 11.1% of all drivers involved in crashes. In contrast, drivers over 55 years of age made up 26.7% of the total active licenced drivers, but comprised only 14.4% of all drivers in traffic accidents. Drivers between the ages of 20 and 54 made up 66.7% of the total active licenced driver population and accounted for 51.8% of the drivers involved in collisions.

Distribution of Driver Involvement in Traffic Collisions by Age Group and Relative Involvement /1,000 Active Drivers 2001



The 16-19 age group had the highest relative involvement rate at 115/1,000 followed by the 20-24 age group with a rate of 81/1,000. The lowest relative involvement rate belonged to the 65-74 group, at 34/1,000 drivers. The overall relative involvement rate for all age groups in 2001 was 68/1,000.

Comparison of Relative Involvement Rates /1,000 Active Drivers by Age Group and Sex 2001

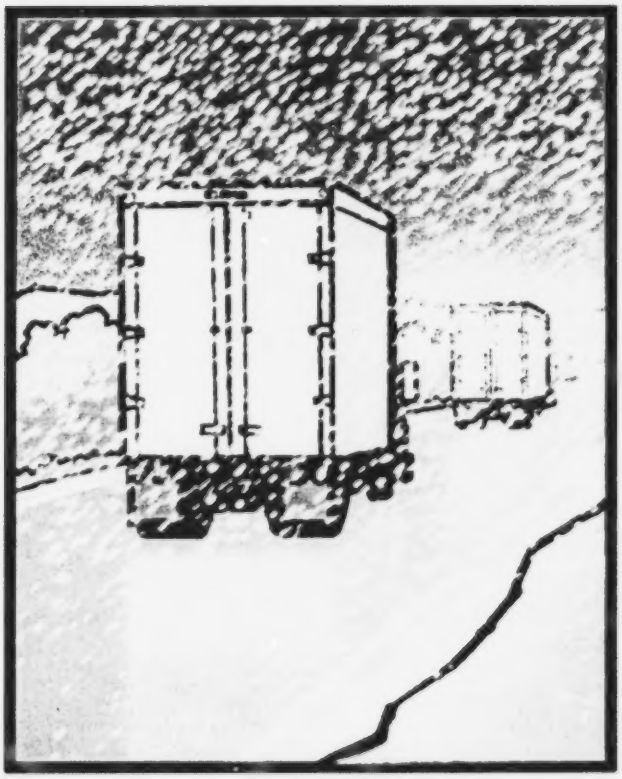


	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	All Ages
Female	90	62	45	40	35	28	24	28	43
Male	135	96	67	56	52	45	42	44	64

Male drivers were involved in crashes more often than females. The highest relative involvement occurred in the male age group 16-19 at 135/1,000, compared to female involvement at 90/1,000. The rates for both genders decrease until the age of 75.

Section 9

Contributing Factors



INTRODUCTION TO SECTION 9

This section provides further insight into the factors that result in collisions. These factors are broken down into driver action, human condition, vehicle condition, and environmental factors.

Driver action indicates whether the driver was driving properly, improperly, or if it was unknown (not stated).

Human condition identifies those factors that may have affected the individual's ability to drive safely. Of particular interest in this regard are the numbers of drivers affected by alcohol and drugs.

Since safety campaigns take into account driver age groups, driver actions and human conditions are broken down by age group.

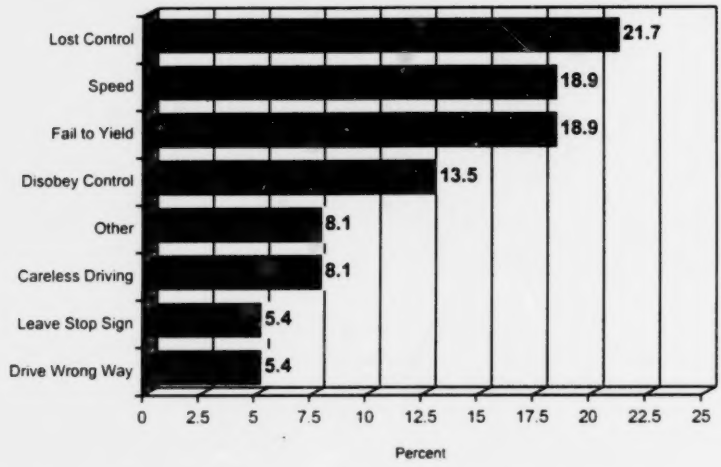
Vehicle defects and environmental conditions are presented according to the number of vehicles involved.

Driver Involvement in Traffic Collisions by Driver Action and Collision Type 2001

Driver Action	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Driving Properly[1]	46	4651	12787	17484	37.7
Follow Too Closely	0	326	669	995	2.2
Turn Improperly	1	162	459	622	1.3
Exceed Speed Limit	3	65	74	142	0.3
Drive Too Fast For Conditions	3	259	616	878	1.9
Unsafe Speed (too fast or too slow)	1	42	63	106	0.2
Passing Improperly	0	19	100	119	0.3
Change Lanes Improperly	1	57	294	352	0.8
Fail to Yield	7	382	920	1309	2.8
Disobeyed Traffic Control	5	286	356	647	1.4
Drive Wrong Way	2	13	18	33	0.1
Pass Vehicle at Pedestrian X-Walk	0	3	1	4	-.-
Backing Up Unsafely	1	30	665	696	1.5
Park Improperly	0	1	51	52	0.1
Careless Driving	3	143	333	479	1.0
Lost Control/Off Roadway	8	179	339	526	1.1
Driverless Vehicle	0	2	9	11	-.-
Leave Stop Sign	2	106	177	285	0.6
Fail To Signal	0	4	10	14	-.-
Take Avoiding Action	0	45	137	182	0.4
Driver Inexperience	0	108	284	392	0.9
Pedestrian Error/Confusion	1	14	10	25	0.1
Not Stated	43	4480	16448	20971	45.3
Total	127	11377	34820	46324	100.0

[1]No apparent improper driving action noted on traffic accident report.

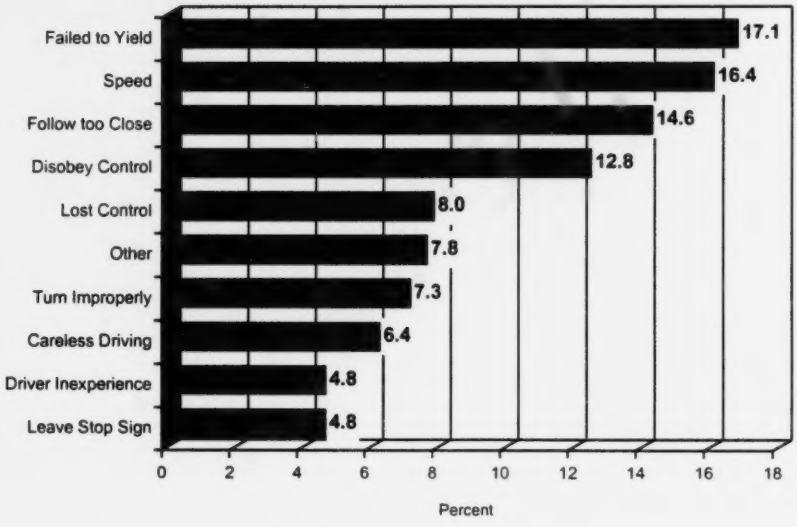
Comparison of At-Fault Driver Actions in Fatal Traffic Collisions 2001



Speed includes exceeding speed limit, drive too fast for conditions or unsafe operating speed.
Other includes turn improperly, change lanes improperly, backing up unsafely and pedestrian error.

Among at-fault drivers involved in fatal collisions, the most common reported infractions were "lost control/drive off roadway" (21.7%), "speed related" (18.9%), "fail to yield" (18.9%) and "disobey traffic control" (13.5%).

Comparison of Injury At-Fault Driver Actions 2001



Other includes passing improperly, changing lanes, drive wrong way, back-up unsafely, park improperly, driverless vehicle, fail to signal, take avoiding action and pedestrian error.

The three main at-fault driver actions resulting in injuries were "failure to yield" (17.1% or 382), "speed-related" (16.4% or 366), and "follow too close" (14.6% or 326).

Driver Involvement in Fatal Traffic Collisions by Driver Action and Age Group 2001

Driver Action	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Drive Properly	0	4	3	15	11	10	1	0	2	0	46
Follow Too Closely	0	0	0	0	0	0	0	0	0	0	0
Turn Improperly	0	0	1	0	0	0	0	0	0	0	1
Exceed Speed Limit	0	1	0	1	0	1	0	0	0	0	3
Drive Too Fast	0	0	0	1	1	1	0	0	0	0	3
Unsafe Speed	0	0	0	0	0	1	0	0	0	0	1
Passing Improperly	0	0	0	0	0	0	0	0	0	0	0
Change Lanes Improperly	0	0	0	0	0	1	0	0	0	0	1
Fail to Yield	0	0	1	0	1	2	2	0	1	0	7
Disobey Traffic Control	0	0	1	1	1	2	0	0	0	0	5
Drive Wrong Way	0	0	0	0	2	0	0	0	0	0	2
Pass at Pedestrian Corridor	0	0	0	0	0	0	0	0	0	0	0
Backing Up Unsafely	0	0	0	0	0	0	0	1	0	0	1
Park Improperly	0	0	0	0	0	0	0	0	0	0	0
Careless Driving	0	1	0	1	0	0	0	0	1	0	3
Lost Control/Off Roadway	0	0	1	4	1	1	0	0	1	0	8
Driverless Vehicle	0	0	0	0	0	0	0	0	0	0	0
Leave Stop Sign	0	0	1	0	0	0	1	0	0	0	2
Fail to Signal	0	0	0	0	0	0	0	0	0	0	0
Take Avoiding Action	0	0	0	0	0	0	0	0	0	0	0
Driver Inexperience	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Error/Confusion	0	1	0	0	0	0	0	0	0	0	1
Not Stated	0	10	4	4	7	9	3	3	2	1	43
Total	0	17	12	27	24	28	7	4	7	1	127
At-fault rate/10,000 active licenced drivers	-.-	0.4	0.9	0.7	0.4	0.7	0.3	0.2	0.8	-.-	0.5

Of the total *at-fault drivers* involved in fatal collisions, the age groups 20-24 and 75 and older recorded the highest rate of driver infractions at 0.9/10,000 and 0.8/10,000 active licenced drivers. The 20-24 age group was nearly twice as likely to incur at-fault infractions than the total at-fault drivers (0.9 versus .05), followed by the 75 and older age group at 1.6 times (0.8 versus 0.5).

Among all at-fault drivers, the most commonly reported driving infractions were "lost control/off roadway" (21.7%), "fail to yield" (18.9%), and "disobey traffic control device" (13.5%).

Driver Involvement in Injury Traffic Collisions by Driver Action and Age Group 2001

Driver Action	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Drive Properly	4	451	524	966	1052	828	421	226	110	69	4651
Follow Too Closely	1	40	52	49	45	36	18	10	5	70	326
Turn Improperly	0	28	22	20	24	16	14	10	14	14	162
Exceed Speed Limit	0	29	12	14	2	2	0	1	1	4	65
Drive Too Fast	0	64	38	50	35	27	10	8	4	23	259
Unsafe Speed	2	14	7	8	3	2	2	0	1	3	42
Passing Improperly	0	3	2	3	5	3	0	1	1	1	19
Change Lanes Improperly	0	7	9	5	7	5	2	5	5	12	57
Fail to Yield	0	60	44	62	48	51	30	18	35	34	382
Disobey Traffic Control	1	43	30	42	42	34	27	14	22	31	286
Drive Wrong Way	0	0	1	3	3	0	1	1	1	3	13
Pass at Pedestrian Corridor	0	1	1	0	1	0	0	0	0	0	3
Backing Up Unsafely	0	3	3	3	6	2	2	0	2	9	30
Park Improperly	0	0	0	0	0	0	0	0	0	1	1
Careless Driving	2	26	15	23	12	11	9	3	6	36	143
Lost Control/Off Roadway	4	48	28	29	23	24	10	5	7	1	179
Driverless Vehicle	0	0	1	0	0	1	0	0	0	0	2
Leave Stop Sign	1	22	12	12	14	11	8	11	14	1	106
Fail to Signal	0	2	0	0	1	0	0	1	0	0	4
Take Avoiding Action	0	8	7	6	11	6	4	2	1	0	45
Driver Inexperience	5	79	9	6	2	1	1	1	1	3	108
Pedestrian Error/Confusion	0	5	1	2	1	2	1	1	1	0	14
Not Stated	7	375	322	573	542	461	229	116	112	1743	4480
Total	27	1308	1140	1876	1879	1523	789	434	343	2058	11377
At-fault rate/1,000 active licenced drivers	-.-	10.7	5.4	2.9	1.9	1.7	1.6	1.6	3.2	-.-	3.3

The age group 16-19 recorded the highest reported rate of driving infractions in injury collisions, at 10.7/1,000 active drivers, followed by 20-24 at 5.4/1,000 and 75 years and over at 3.2/1,000.

Certain age groups display *different* at-fault driver involvement patterns. Among at-fault drivers 16-19 years old, "driver inexperience" (16.5%), "drive too fast for conditions" (13.4%) and "fail to yield" (12.6%) were the most commonly reported infractions. Conversely, among those aged 65 and older, "fail to yield" accounted for 25.1% of at-fault driver actions, followed by "disobey traffic controls", at 17.1%, and "leave stop sign before safe to do so", at 11.8%.

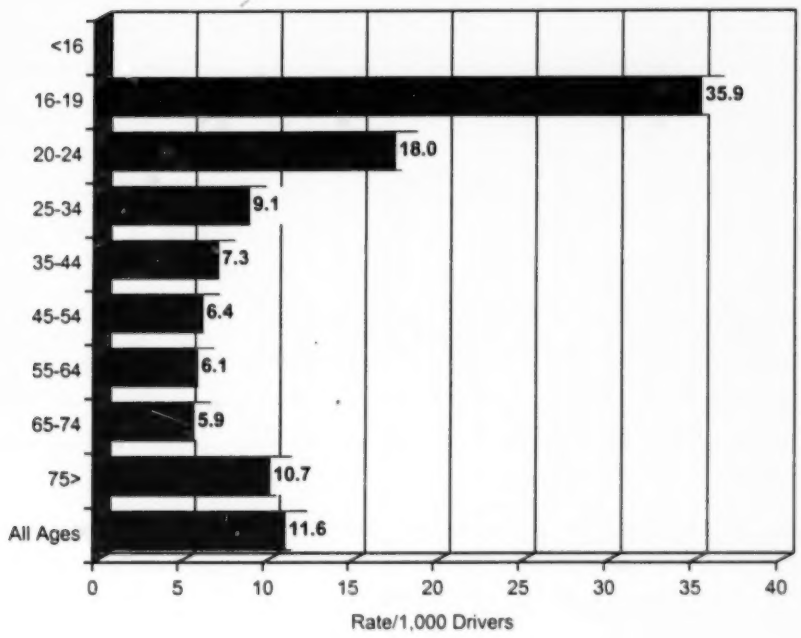
Driver Involvement in Property Damage Traffic Collisions by Driver Action and Age Group 2001

Driver Action	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Drive Properly	11	1414	1395	2263	2654	2229	1258	774	412	377	12787
Follow Too Closely	0	124	99	92	106	76	40	14	13	105	669
Turn Improperly	1	63	59	48	64	57	42	34	34	57	459
Exceed Speed Limit	2	30	18	12	4	0	1	0	0	7	74
Drive Too Fast	2	163	95	95	88	68	33	9	11	52	616
Unsafe Speed	0	18	13	12	4	3	3	0	4	6	63
Passing Improperly	1	15	10	20	15	11	10	2	1	15	100
Change Lanes Improperly	1	35	31	25	41	31	25	20	20	65	294
Fail to Yield	3	132	92	95	130	114	71	76	81	126	920
Disobeyed Traffic Control	1	52	34	46	57	42	23	25	15	61	356
Drive Wrong Way	0	4	1	4	2	0	3	1	0	3	18
Pass at Pedestrian Corridor	0	0	0	0	1	0	0	0	0	0	1
Backing Up Unsafely	2	82	54	73	109	108	61	35	39	102	665
Park Improperly	0	5	8	7	3	5	8	4	6	5	51
Careless Driving	3	65	34	42	47	33	16	7	13	73	333
Lost Control/Off Roadway	4	87	53	56	52	32	17	9	9	20	339
Driverless Vehicle	1	0	0	1	1	3	0	1	0	2	9
Leave Stop Sign	0	25	24	24	20	16	16	12	25	15	177
Fail to Signal	0	6	0	0	1	1	1	1	0	0	10
Take Avoiding Action	0	26	19	26	31	15	10	6	2	2	137
Driver Inexperience	18	190	34	18	14	3	2	0	1	4	284
Pedestrian Error/Confusion	0	3	2	1	0	0	1	1	2	0	10
Not Stated	24	1253	1143	1636	1843	1561	806	546	362	7274	16448
Total	74	3792	3218	4596	5287	4408	2447	1577	1050	8371	34820
At-fault rate/1,000 active licenced drivers	-.-	25.2	12.5	6.1	5.3	4.6	4.4	4.4	7.4	-.-	8.2

The age group 16-19 recorded the highest reported rate of driving infractions in property damage collisions, at 25.2/1,000 active drivers, followed by 20-24 at 12.5/1,000 and 75 years and over at 7.4/1,000.

Certain age groups display *different* at-fault driver involvement patterns. "Driver inexperience" (16.9%), "drive too fast for conditions" (14.5%), and "failing to yield" (11.7%) were the primary actions in the 16-19 year age group. For drivers over 74, the most common infractions were "failing to yield" (29.6%), "backing up unsafely" (14.2%), and "turning improperly" (12.4%).

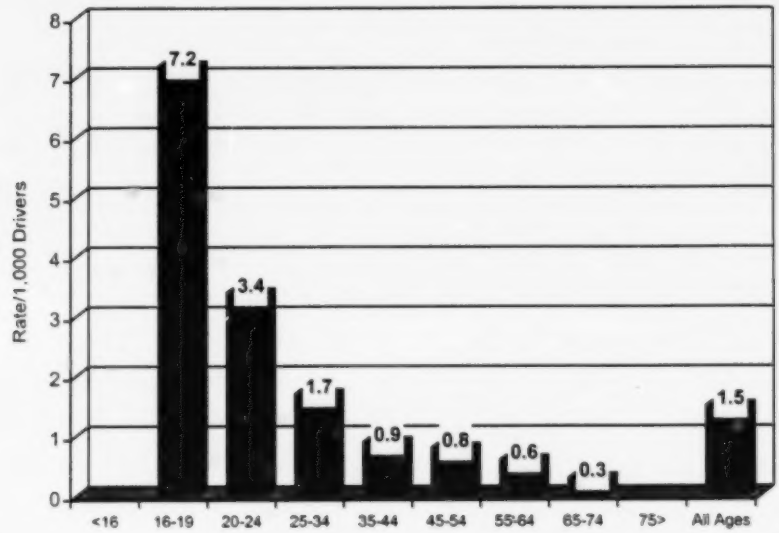
Rate of At-Fault Driver Actions
by 1,000 Active Licenced Drivers and Age Group
2001



This graph illustrates that among the drivers committing infractions, the 16-19 and 20-24 age groups reported the highest at-fault incidence (35.9/1,000 and 18.0/1,000 respectively). The rate for drivers aged 16-24, at 26.1/1,000, was more than double the rate for all age groups taken together, at 11.6/1,000.

The lowest rates occurred among the age groups 65-74 (5.9/1,000), 55-64 (6.1/1,000), and 45-54 (6.4/1,000).

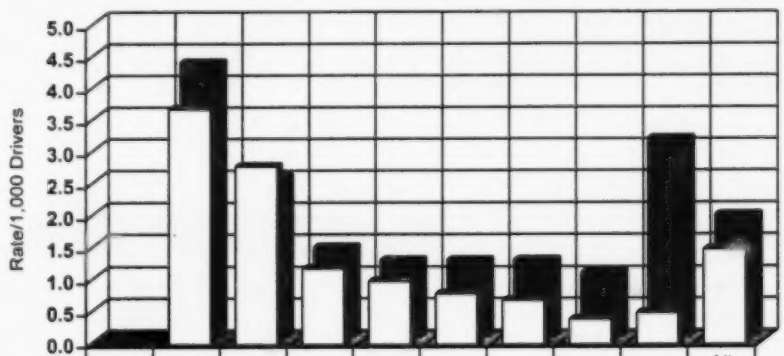
Speed-Related* At-Fault Driver Actions by 1,000 Active Licenced Drivers 2001



*Speed-related includes exceeding speed limit, drive too fast for conditions and unsafe operating speed.

Drivers in the 16-19 age group recorded the highest rate of at-fault speed-related driver actions, nearly five times higher than for all age groups (7.2/1,000 active licenced drivers versus 1.5/1,000 active licenced drivers).

Fail to Yield and Follow Too Close Driver Actions Per 1,000 Active Licenced Drivers 2001



	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	All Ages
☐ Follow too close	-.-	3.7	2.8	1.2	1.0	0.8	0.7	0.4	0.5	1.5
■ Fail to Yield	-.-	4.3	2.5	1.4	1.2	1.2	1.2	1.0	3.1	1.9

The "fail to yield" infraction recorded an overall involvement rate of 1.9 per 1,000 active licenced drivers. The 16-19 year age group recorded the highest rate, at 4.3/1,000, followed by drivers aged 75 or greater, at 3.1/1,000. The "follow too closely" involvement rate for all drivers was 1.5/1,000 with the highest rates incurred by the 16-19 and 20-24 year age groups at 3.7/1,000 and 2.8/1,000 respectively.

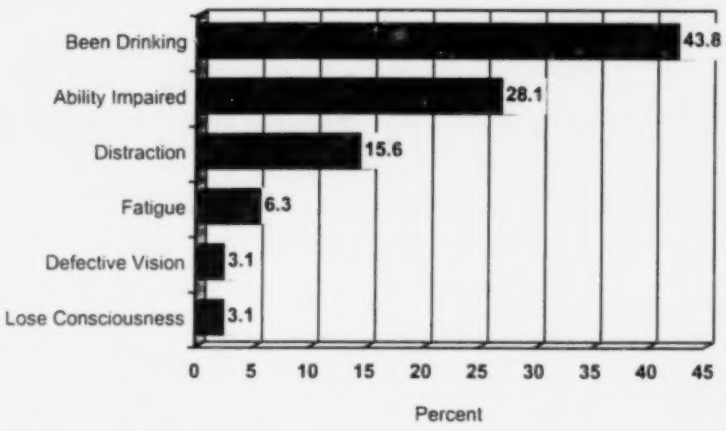
Driver Involvement in Traffic Collisions by Human Condition and Collision Type 2001

Human Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Apparently Normal	58	5929	16631	22618	48.8
Loss of Consciousness	1	33	11	45	0.1
Extreme Fatigue/Fell Asleep	2	58	65	125	0.3
Defective Eyesight	1	6	10	17	-.-
Defective Hearing	0	3	9	12	-.-
Medical Disability	0	2	8	10	-.-
Physical Disability	0	2	9	11	-.-
Mental Disability	0	5	3	8	-.-
Mental Confusion/Unable to Remember	0	11	17	28	0.1
Sudden Illness	0	6	6	12	-.-
Ability Impaired by Alcohol	9	139	210	358	0.8
Ability Impaired by Drugs	0	6	10	16	-.-
Had Been Drinking/Suspected Alcohol Use[1]	14	65	89	168	0.4
Distraction/Inattention	5	372	772	1149	2.5
Exceed Hours of Service	0	1	1	2	-.-
Not Stated	37	4739	16969	21745	47.0
Total	127	11377	34820	46324	100.0

[1]These statistics represent only those collisions where alcohol involvement was apparent.

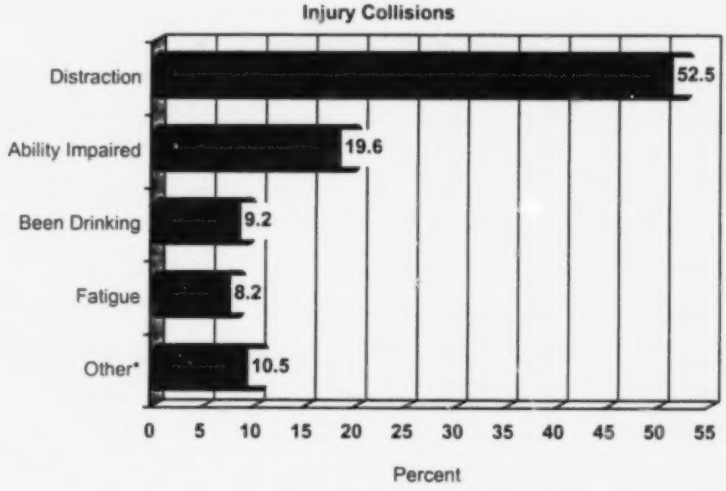
Comparison of At-Fault Human Condition Factors in Crashes

Fatal Collisions



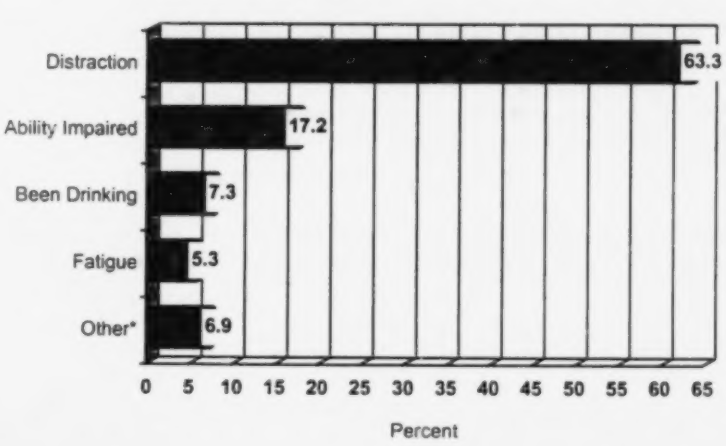
This graph demonstrates that among the at-fault drivers involved in fatal crashes, 71.9% were reported to have consumed alcohol. Of these drivers, 28.1% "had been drinking" while 43.8% had their "ability impaired by alcohol".

Injury Collisions



"Distraction/inattention (52.5%) was the most frequently reported driver condition. After driver inattentiveness, alcohol consumption was the second reported condition, however these figures were *much lower* than those reported drivers involved in fatal crashes. Prior to collision occurrence, 19.6% of the at-fault drivers had their "ability impaired by alcohol", while 9.2% "had been drinking".

Property Damage Collisions



"Distraction/inattention" driver conditions are noted as having the largest influence on property damage crashes, four times more than fatal crashes (63.3% versus 15.6%). Alcohol impairment as a contributing factor is lower in property damage and injury-producing crashes.

*For both injury and property damage collisions, other includes loss of consciousness, defective eyesight, hearing, medical, physical and mental disability, sudden illness, impaired drugs and exceed hours of service.

Driver Involvement in Fatal Traffic Collisions by Human Condition and Age Group 2001

Human Condition	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Apparently Normal	0	7	5	16	12	12	2	0	4	0	58
Loss of Consciousness	0	0	0	0	0	0	0	1	0	0	1
Extreme Fatigue/Sleep	0	1	0	0	0	1	0	0	0	0	2
Defective Eyesight	0	0	0	0	0	1	0	0	0	0	1
Defective Hearing	0	0	0	0	0	0	0	0	0	0	0
Medical Disability	0	0	0	0	0	0	0	0	0	0	0
Physical Disability	0	0	0	0	0	0	0	0	0	0	0
Mental Disability	0	0	0	0	0	0	0	0	0	0	0
Mental Confusion	0	0	0	0	0	0	0	0	0	0	0
Sudden Illness	0	0	0	0	0	0	0	0	0	0	0
Ability Impaired Alcohol	0	1	2	2	2	1	0	0	0	1	9
Ability Impaired Drugs	0	0	0	0	0	0	0	0	0	0	0
Had Been Drinking Suspected Alcohol Use[1]	0	2	4	1	4	2	0	0	1	0	14
Distraction/Inattention	0	1	1	0	0	2	0	1	0	0	5
Exceed Hours of Service	0	0	0	0	0	0	0	0	0	0	0
Not Stated	0	5	0	8	6	9	5	2	2	0	37
Total	0	17	12	27	24	28	7	4	7	1	127
At-fault rate/10,000 active licenced drivers	-.-	1.1	1.3	0.3	0.4	0.5	0.0	0.3	0.3	-.-	0.5

[1] These statistics are understated and represent only those collisions where alcohol involvement was apparent.

The age group 20-24 recorded the highest reported rate of at-fault human condition factors in fatal collisions at 1.3/10,000 active licenced drivers, followed by the 16-19 year age group, at 1.1/10,000 active licenced drivers.

"Had been drinking/suspected alcohol use" (43.7%), "ability impaired by alcohol" (28.1%), and "distraction/inattention" (15.6%) were the primary contributing factors in fatal crashes where a known factor was identified.

Driver Involvement in Injury Traffic Collisions by Human Condition and Age Group 2001

Human Condition	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Apparently Normal	9	704	714	1179	1250	929	493	272	177	202	5929
Loss of Consciousness	0	4	1	3	1	10	5	2	7	0	33
Extreme Fatigue/Sleep	0	12	6	16	5	5	7	4	2	1	58
Defective Eyesight	0	0	0	0	1	1	2	0	2	0	6
Defective Hearing	0	0	0	1	0	1	0	0	1	0	3
Medical Disability	0	0	0	0	0	0	0	0	1	1	2
Physical Disability	0	0	0	0	0	1	0	0	0	1	2
Mental Disability	0	0	0	2	1	0	1	0	1	0	5
Mental Confusion	0	0	0	2	0	1	3	0	5	0	11
Sudden Illness	0	1	0	1	1	0	0	0	3	0	6
Ability Impaired Alcohol	2	23	30	37	19	19	6	0	0	3	139
Ability Impaired Drugs	0	3	2	1	0	0	0	0	0	0	6
Had Been Drinking Suspected Alcohol Use[1]	1	18	11	18	5	6	2	1	0	3	65
Distraction/Inattention	0	86	54	49	50	39	33	24	19	18	372
Exceed Hours of Service	0	0	0	1	0	0	0	0	0	0	1
Not Stated	15	457	322	566	546	511	237	131	125	1829	4739
Total	27	1308	1140	1876	1879	1523	789	434	343	2058	11377
At-fault rate/1,000 active drivers	-.-	3.3	1.9	1.1	0.6	0.6	0.7	0.5	1.1	-.-	1.0

[1]These statistics are understated and represent only those collisions where alcohol involvement was apparent.

The age group 16-19 recorded the highest rate of at-fault human condition factors in injury collisions at 3.3/1,000 active drivers, followed by 20-24 at 1.9/1,000 and 75+ at 1.1/1,000.

Among drivers, <16-19 years old "distracted/inattentive" (58.5%) and "impaired by alcohol" (17.0%) were the major factors in contributing to collision causation. In the 20 to 54 combined group, "distraction and inattention" was slightly lower than the younger driver (48.9% versus 58.5%), however this group did have the highest alcohol involvement (24.1% versus 17.0%).

For drivers 65 years and older "distraction" (59.7%) was the major contributing factor in injury crashes, followed by "loss of consciousness" (12.5%) and "extreme fatigue/fell asleep" at (8.3%).

Driver Involvement in Property Damage Traffic Collisions by Human Condition and Age Group 2001

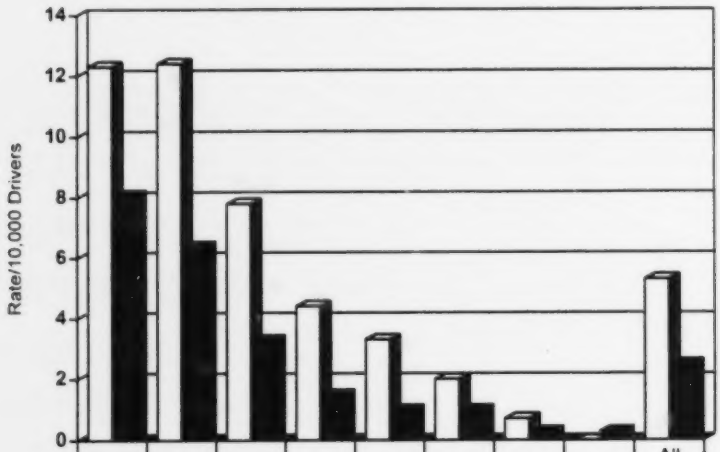
Human Condition	Age Group										Total
	<16	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	NS	
Apparently Normal	30	2128	1838	2813	3267	2697	1534	958	590	776	16631
Loss of Consciousness	0	1	1	1	1	1	2	1	1	2	11
Extreme Fatigue/Sleep	0	16	15	12	7	7	2	4	1	1	65
Defective Eyesight	0	2	0	2	1	1	0	1	3	0	10
Defective Hearing	0	1	0	1	1	0	2	1	3	0	9
Medical Disability	0	0	0	0	0	0	1	2	5	0	8
Physical Disability	0	0	2	0	0	3	1	0	3	0	9
Mental Disability	0	1	1	0	0	0	0	0	1	0	3
Mental Confusion	0	0	0	3	2	2	0	2	8	0	17
Sudden Illness	0	0	0	1	1	0	2	1	1	0	6
Ability Impaired Alcohol	3	31	35	50	44	25	11	4	0	7	210
Ability Impaired Drugs	0	2	1	3	3	0	0	0	0	1	10
Had Been Drinking Suspected Alcohol Use[1]	1	16	20	19	13	6	7	1	0	6	89
Distraction/Inattention	4	167	106	101	92	99	61	34	53	55	772
Exceed Hours of Service	0	1	0	0	0	0	0	0	0	0	1
Not Stated	36	1426	1199	1590	1855	1567	824	568	381	7523	16969
Total	74	3792	3218	4596	5287	4408	2447	1577	1050	8371	34820
At-fault rate/1,000 active drivers	-.-	5.3	3.3	1.7	1.1	1.1	1.0	0.9	2.1	-.-	1.8

[1]These statistics are understated and represent only those collisions where alcohol involvement was apparent.

The age group 16-19 recorded the highest rate of at-fault human condition factors in property damage collisions at 5.3/1,000, followed by 20-24 at 3.3/1,000 and 75+ at 2.1/1,000.

"Distraction inattention" (63.3%), "ability impaired by alcohol" (17.2%), and "had been drinking/suspected alcohol use" (7.3%) were the primary at-fault human condition factors in property damage collisions where a known factor was identified.

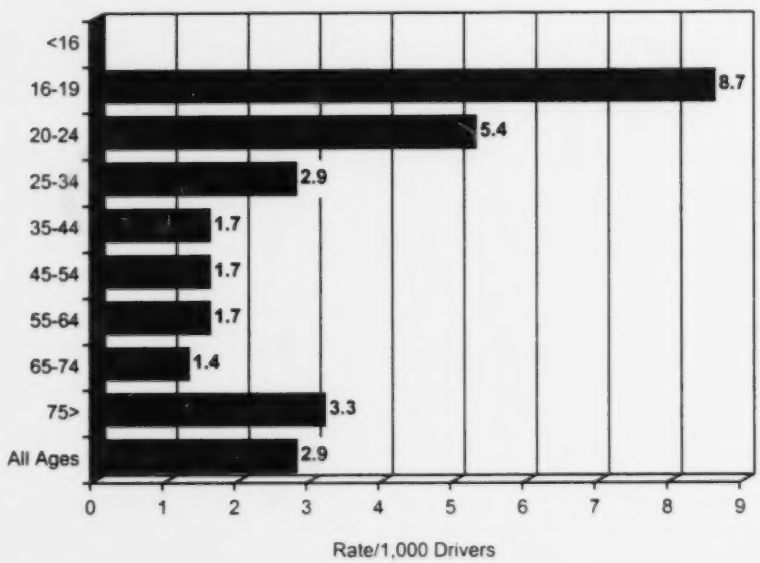
Alcohol-Related Human Condition Factors by 10,000 Active Licenced Drivers and Age Group 2001



	16-19	20-24	25-34	35-44	45-54	55-64	65-74	75>	All Ages
□ Impaired Alcohol	12.3	12.4	7.8	4.4	3.3	2.0	0.7	0.0	5.3
■ Had Been Drinking	8.1	6.4	3.3	1.5	1.0	1.0	0.3	0.3	2.5

Alcohol was a greater factor in accident causation among younger age groups, with 12.3/10,000 active licenced drivers aged 16-19 impaired by alcohol and 8.1/10,000 believed to have consumed alcohol. The respective rates for those aged 20-24 was 12.4/10,000 and 6.4/10,000. The lowest alcohol involvement rates were recorded for drivers aged 55 or older for which the rate was consistently below 2.1/10,000 active drivers.

Rate of At-Fault Human Condition Factors by 1,000 Active Licenced Drivers and Age Group 2001



The 16-19 age group recorded the highest rate of at-fault human condition factors, at 8.7/1,000 active licenced drivers, followed by the 20-24 age group at 5.4/1,000 and the 75+ age group at 3.3/1,000.

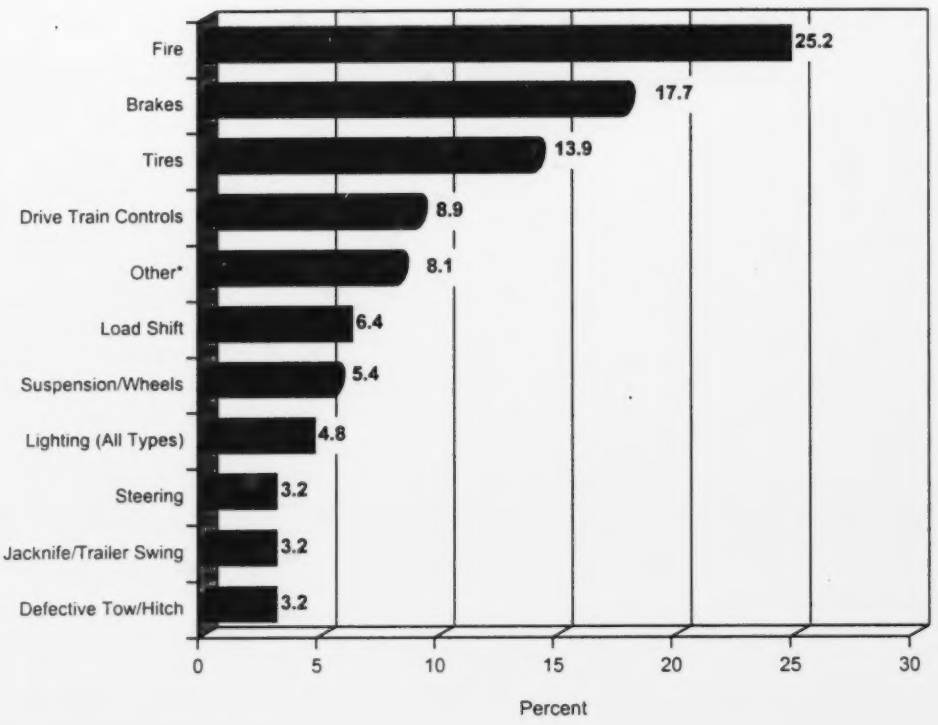
Vehicle Involvement in Traffic Collisions by Vehicle Defect and Collision Type 2001

Vehicle Defect[1]	Collision Type			Total	%
	Fatal	Injury	P. Damage		
No Apparent Defect	69	6008	17296	23373	45.7
Defective Brakes	0	19	47	66	0.1
Defective Steering	0	2	10	12	-.-
Defective Headlights	0	2	4	6	-.-
Defective Brake Lights	0	0	3	3	-.-
Defective Lighting (Unspecific)	0	3	6	9	-.-
Defective Engine Controls/Drive Train	0	6	27	33	0.1
Defective Suspension/Wheels	0	4	16	20	-.-
Defective Tires	0	21	31	52	0.1
Defective Tow Hitch/Yoke	0	1	11	12	-.-
Defective Exhaust System	0	0	1	1	-.-
Hood/Tailgate/Door/Covering Opened	0	0	11	11	-.-
Defective Glazing (obscured window)	0	1	5	6	-.-
Vehicle Modifications	0	0	4	4	-.-
Fire	1	5	88	94	0.2
Overloaded/Oversized	0	0	4	4	-.-
Load Shifted/Spilled	0	7	17	24	0.1
Jack-Knife/Trailer Swing	0	3	9	12	-.-
Hydroplaning of Tires	0	2	2	4	-.-
Not Stated	68	5686	21623	27377	53.5
Total	138	11770	39215	51123	100.0

[1] *The reader is cautioned that the "vehicle defect" statistics are obtained from the traffic accident reports completed by the person reporting the collision and as such they may be unaware of any vehicle defect.*

Of the total number of vehicles involved in traffic collisions, 45.7% had "no apparent defect" at the time of collision occurrence. Only 0.6% or 373 of the vehicles involved were reported to have had a vehicle defect that contributed to a collision.

Distribution of At-Fault Vehicle Defect Factors
in Collision Causation
2001



*Other includes defective exhaust system, hood/tailgate/door/covering opened, defective glazing (obscured window), overloaded/oversized, hydroplaning of tires, and vehicle modifications.

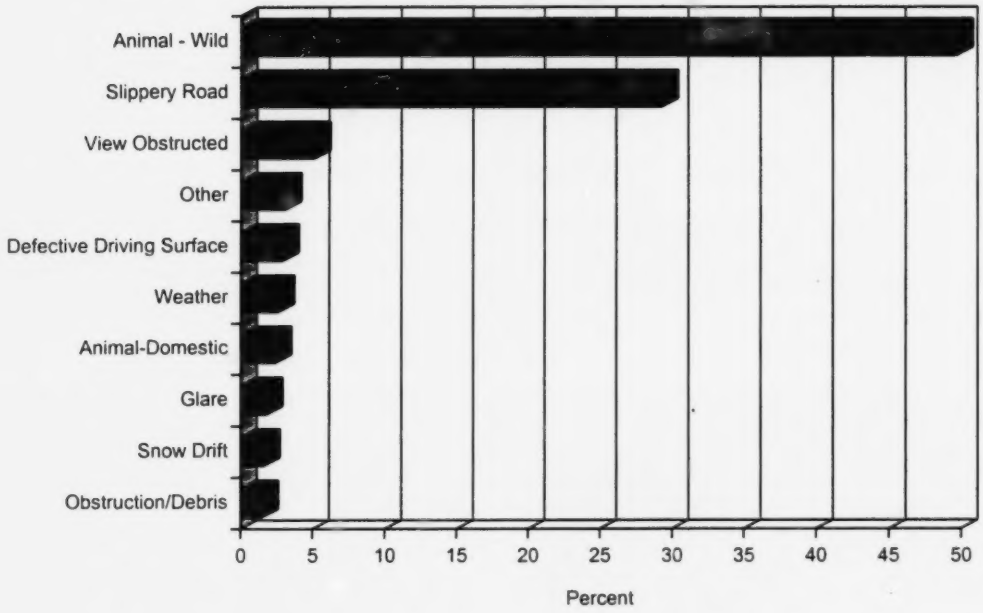
The distribution of at-fault "vehicle defects" is based on 373 vehicles involved in traffic collisions that had a *readily apparent* defect at time of collision occurrence.

Vehicle Involvement in Traffic Collisions by Environmental Condition and Collision Type 2001

Environmental Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
No Apparent Contributing Factor	128	10727	34165	45020	88.1
Animal Action – Wild	1	189	2846	3036	5.9
Animal Action – Domestic	0	30	115	145	0.3
Slippery Road Surface	6	483	1297	1786	3.5
Snow Drift	0	26	75	101	0.2
Obstruction/Debris on Roadway	0	13	80	93	0.2
View Obstructed/Limited	1	87	221	309	0.6
Glare	1	51	56	108	0.2
Construction Zone	0	9	26	35	0.1
Defective Driving Surface	0	61	117	178	0.3
Shoulders Defective	0	6	12	18	-.-
Lane Markings Inadequate	0	0	3	3	-.-
Defective/Inoperative Traffic Control Device	0	2	10	12	-.-
Weather	1	50	105	156	0.3
Pedestrian Corridor in Use	0	11	2	13	-.-
Uninvolved Vehicle	0	19	58	77	0.1
Uninvolved Pedestrian	0	3	17	20	-.-
Presence of Prior Accident	0	3	10	13	-.-
Total	138	11770	39215	51123	100.0

Environmental conditions were cited as contributing factors for 11.9% of all vehicles involved in traffic collisions. The most significant factors were "wild animal action" (49.7%) and "slippery road surface" (29.3%).

Distribution of At-Fault Environmental Factors
in Collision Causation
2001

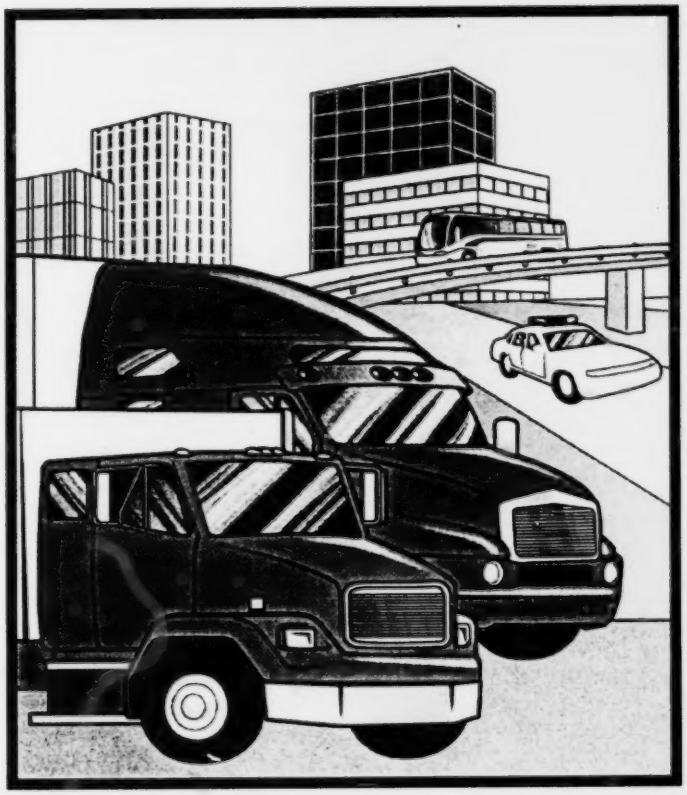


*Other includes uninvolved vehicles, construction zone, uninvolved pedestrian, pedestrian corridor, prior accident, defective shoulders, traffic control device and lane markings.

Environmental conditions were a factor in the involvement of 6,103 vehicles in collisions.

Section 10

National Safety Code Monitoring Report



INTRODUCTION TO SECTION 10

This section indicates commercial vehicle involvement in collisions. The table on page 97 indicates the number of commercial vehicles involved in fatal, injury, and property damage collisions, according to the type of vehicle. The table on page 98 indicates the number of individuals killed or injured in collisions involving commercial vehicles. They may or may not be the occupants of those vehicles.

The National Safety Code vehicle categories include: trucks greater than 4500 kilograms, tractor/semi-trailers, other trucks, school buses, transit buses, intercity buses, and other buses.

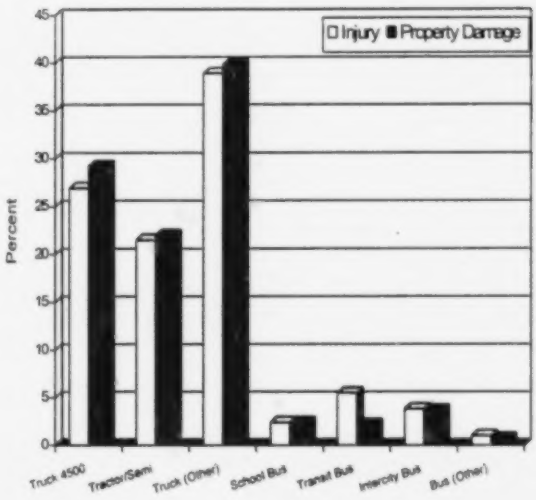
Commercial Vehicle Traffic Collisions[1] by NSC Commercial Vehicle Category and Collision Type 2001

Vehicle Category	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Truck >4500 kg	4	136	470	610	28.6
Tractor/Semi	11	109	353	473	22.2
Truck (Other)	3	197	640	840	39.4
School Bus	0	12	38	50	2.3
Transit Bus	0	28	35	63	3.0
Intercity Bus	0	19	59	78	3.7
Bus (Other)	0	5	12	17	0.8
Total	18	506	1607	2131	100.0

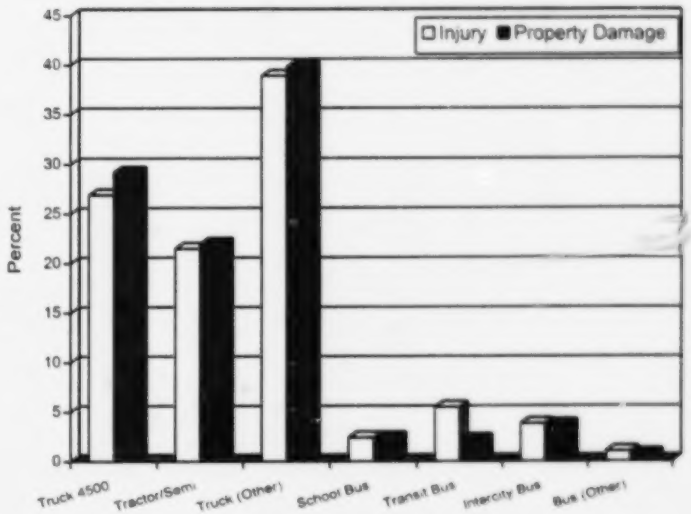
[1]Chart presents the number of commercial vehicles involved in traffic accidents by NSC vehicle category.

Percentage Comparison of Commercial Vehicle Collisions by NSC Commercial Vehicle Category and Collision Type 2001

Fatal



Injury and Property Damage

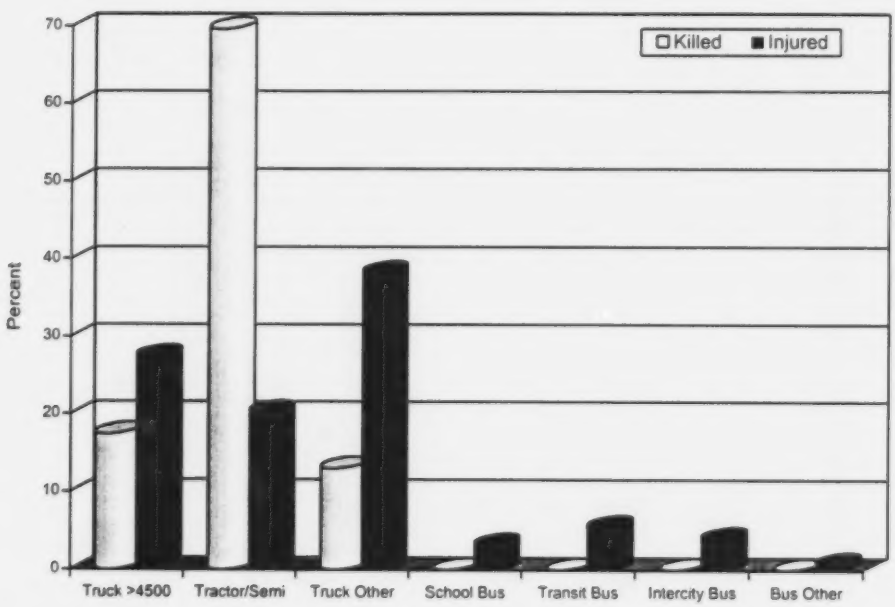


Commercial Vehicle Traffic Collision Victims[1] by NSC Commercial Vehicle Category and Injury Type 2001

Vehicle Category	Injury Type		Total	%
	Killed	Injured		
Truck >4500 kg	4	220	224	27.2
Tractor/Semi	16	162	178	21.6
Truck (Other)	3	306	309	37.6
School Bus	0	26	26	3.2
Transit Bus	0	45	45	5.5
Intercity Bus	0	33	33	4.0
Bus (Other)	0	7	7	0.9
Total	23	799	822	100.0

[1]Chart presents the number of people killed or injured when a commercial vehicle was involved in traffic accidents by NSC vehicle category.

Comparison of Commercial Vehicle Traffic Collision Victims by NSC Commercial Vehicle Category and Injury Type 2001



Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Type 2001

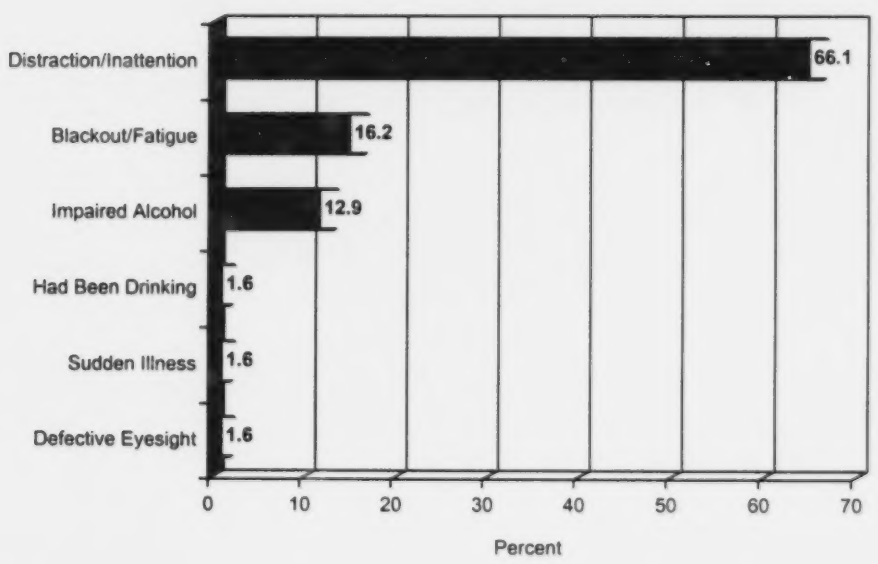
Pre-Collision Activity	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Going Straight Ahead	16	181	448	645	47.5
Turning Left	0	28	80	108	7.9
Turning Right	0	20	87	107	7.9
Making U Turn	0	0	1	1	0.1
Changing Lanes – Left	0	3	10	13	1.0
Changing Lanes – Right	0	4	13	17	1.2
Merging	0	2	4	6	0.4
Reversing	0	7	82	89	6.5
Overtaking	0	3	10	13	1.0
Slowing/Stopping on Roadway	0	19	17	36	2.6
Stopped in Traffic	0	16	47	63	4.6
Starting in Traffic	0	1	3	4	0.3
Leave Parking Position/Roadside	0	1	10	11	0.8
Enter Parking Position/Roadside	0	0	5	5	0.4
Parked Legally	0	6	44	50	3.7
Parked Illegally	0	0	3	3	0.2
Swerving	0	0	8	8	0.6
Unknown	0	0	1	1	0.1
Not Applicable	0	34	145	179	13.2
Total	16	325	1018	1359	100.0

Of the total NSC vehicles involved in traffic collisions, 47.5% (645) were moving "straight ahead" when accident involvement occurred, 15.8% (215) were "turning left/right" and 6.5% (89) were "reversing".

Commercial Driver Involvement in Traffic Collisions by At-Fault Human Condition and Collision Type 2001

Human Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Apparently Normal	13	162	495	670	49.3
Blackout	0	3	1	4	0.3
Fell Asleep	0	2	4	6	0.4
Defective Eyesight	0	0	1	1	0.1
Ability Impaired – Alcohol	0	3	5	8	0.4
Had Been Drinking/Suspected Alcohol Use	0	1	0	1	0.1
Distraction/Inattention	0	13	28	41	3.0
Sudden Illness	0	0	1	1	0.1
Not Stated	3	141	483	627	46.1
Total	16	325	1018	1359	100.0

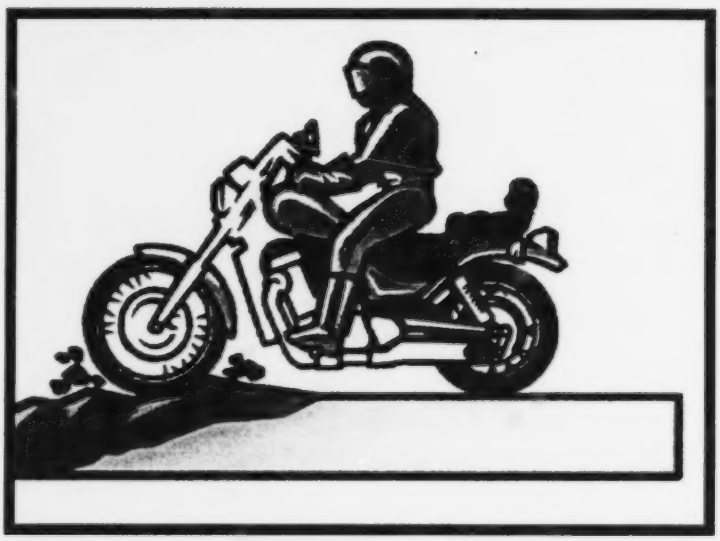
Distribution of At-Fault Human Condition Factors in Commercial Vehicle Traffic Collisions 2001



Known at-fault human condition factors accounted for 62 (4.6%) of the total commercial driver involvement in traffic collisions.

Section 11

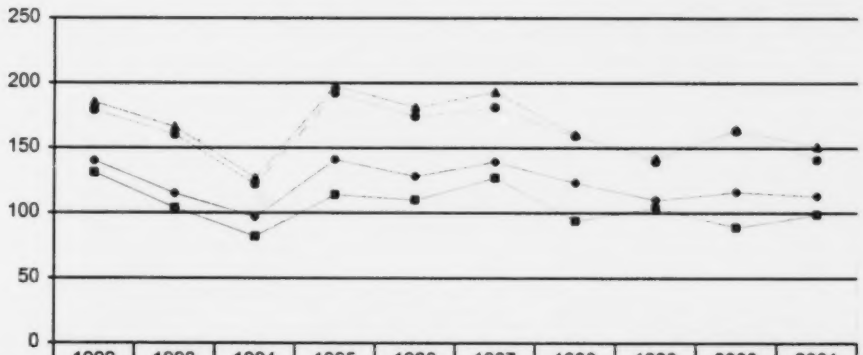
Off-Road Vehicle Collisions



Collision Summary
1992 – 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Collisions	140	115	97	141	128	139	123	110	116	113
Fatal	6	3	9	11	7	12	10	8	9	9
Injury	104	78	59	84	84	87	64	76	64	72
Property Damage	30	34	29	46	37	40	49	26	43	32
Total Victims	131	104	82	114	110	127	94	104	89	99
Killed	6	3	9	11	8	15	10	8	10	10
Injured	125	101	73	103	102	112	84	96	79	89
Total Vehicles Involved	185	166	127	198	181	193	160	142	164	151
Fatal	9	5	11	16	8	21	13	9	17	13
Injury	132	117	78	110	118	116	83	99	85	95
Property Damage	44	44	38	72	55	56	64	34	62	43
Total Drivers Involved	179	160	122	192	174	181	159	139	163	141
Fatal	8	5	11	16	8	19	12	9	15	13
Injury	132	116	76	106	116	108	83	97	84	87
Property Damage	39	39	35	70	50	54	64	33	64	41

Comparison of Total Off-Road Vehicle Collisions
by Collision Victims, Vehicle and Driver Involvement
1992 – 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Collisions	140	115	97	141	128	139	123	110	116	113
Victims	131	104	82	114	110	127	94	104	89	99
Vehicles	185	166	127	198	181	193	160	142	164	151
Drivers	179	160	122	192	174	181	159	139	163	141

Collision Summary
by Vehicle Involvement
2001

	Snowmobile	ATV[1]	Motorcycle	Other[2]	Total
Total Collisions	68	18	1	26	113
Fatal	6	0	0	3	9
Injury	40	14	1	17	72
P. Damage	22	4	0	6	32
Total Victims	51	16	1	31	99
Killed	7	0	0	3	10
Injured	44	16	1	28	89
Total Vehicles Involved	90	24	2	35	151
Fatal	10	0	0	3	13
Injury	50	20	1	24	95
P. Damage	30	4	1	8	43
Total Drivers Involved	83	23	2	33	141
Fatal	10	0	0	3	13
Injury	45	19	1	22	87
P. Damage	28	4	1	8	41

[1]ATV (All Terrain Vehicles) includes 3, 4 and 6 wheel types.

[2]Vehicles not registered as an off-road vehicle, including not stated category.

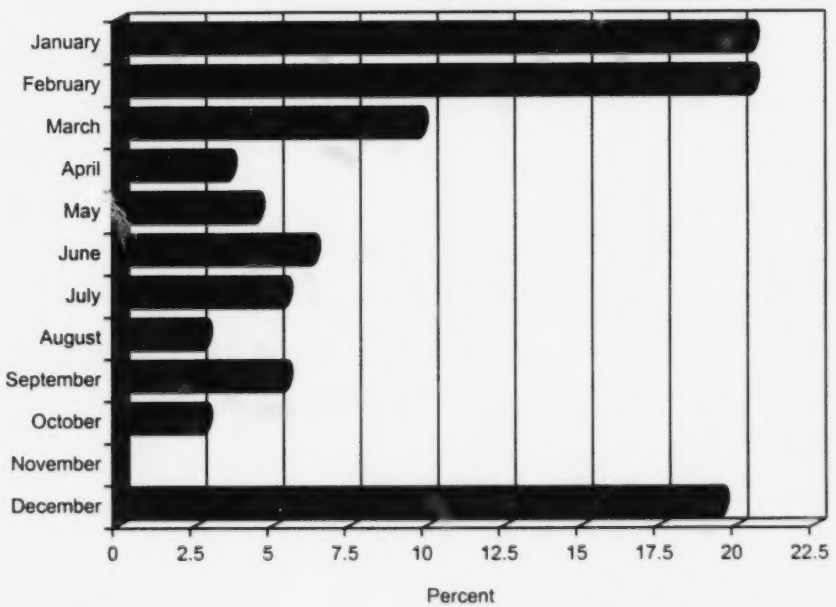
Snowmobiles accounted for 60.2% of total off-road collisions, 51.5% of all victims, 59.6% of all vehicles involved, and 58.9% of all drivers involved.

Collision Summary
By Month of Occurrence and Collision Type
2001

Month	Collision Type			Total	%
	Fatal	Injury	P. Damage		
January	2	13	8	23	20.4
February	3	11	9	23	20.4
March	2	5	4	11	9.7
April	0	4	0	4	3.5
May	0	5	0	5	4.4
June	0	5	2	7	6.2
July	0	6	0	6	5.3
August	0	3	0	3	2.7
September	0	4	2	6	5.3
October	0	3	0	3	2.7
November	0	0	0	0	0.0
December	2	13	7	22	19.4
Total	9	72	32	113	100.0

January and February accounted for 40.8% (46) of the total off-road vehicle collisions. February had the highest percentage of fatal collisions at 33.3% (3). January and December each accounted for 18.1% of injury collisions (13).

Distribution of Total Off-Road Vehicle Collisions
by Month of Occurrence
2001

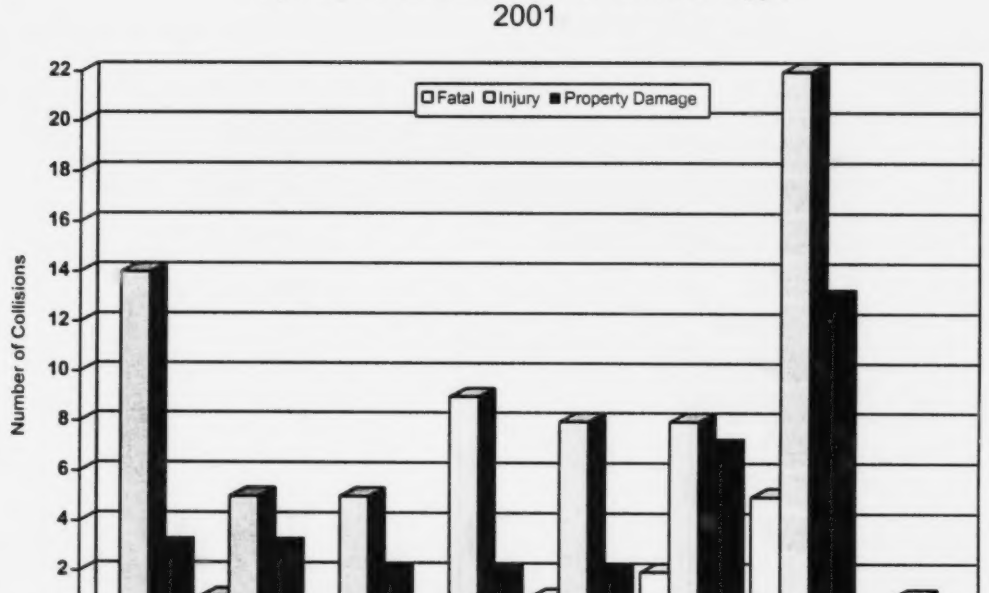


Collision Summary
By Day of Occurrence and Collision Type
2001

Day	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Sunday	0	14	3	17	15.1
Monday	1	5	3	9	7.9
Tuesday	0	5	2	7	6.2
Wednesday	0	9	2	11	9.7
Thursday	1	8	2	11	9.7
Friday	2	8	7	17	15.1
Saturday	5	22	13	40	35.4
Not Stated	0	1	0	1	0.9
Total	9	72	32	113	100.0

Fatal crashes occurred most frequently on Saturday (55.6%) and not at all on Tuesday, Wednesday, and Saturday. Injury collisions occurred most often on Saturday and Sunday (30.6% and 19.5% respectively), and least often on Monday and Tuesday, each at 6.9%.

Comparison of Off-Road Vehicle Collisions
by Day of Occurrence and Collision Type
2001

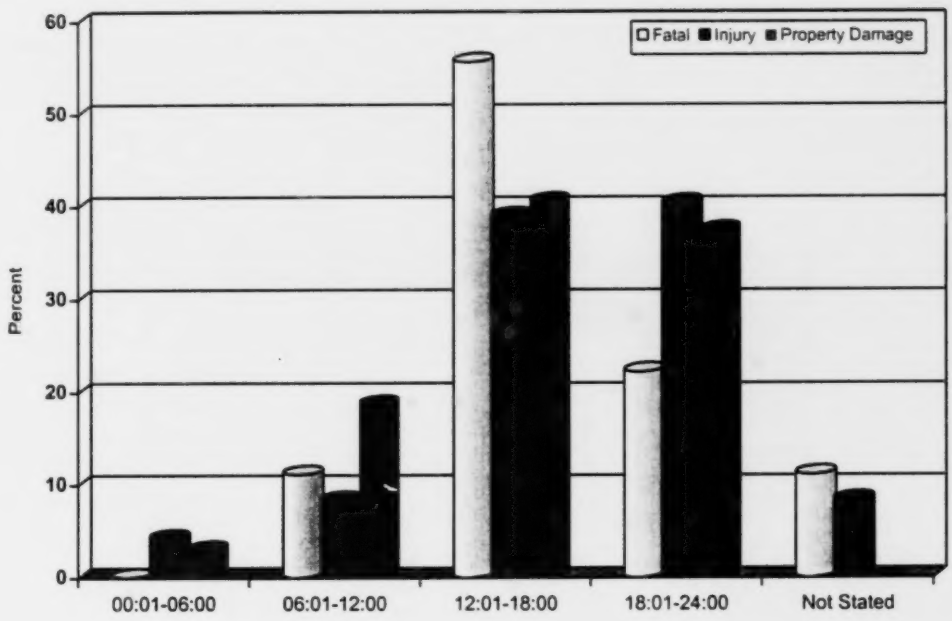


Collision Summary
By Time of Occurrence and Collision Type
2001

Time	Collision Type			Total	%
	Fatal	Injury	P. Damage		
00:01 – 06:00	0	3	1	4	3.6
06:01 – 12:00	1	6	6	13	11.5
12:01 – 18:00	5	28	13	46	40.7
18:01 – 24:00	2	29	12	43	38.0
Not Stated	1	6	0	7	6.2
Total	9	72	32	113	100.0

The primary periods for off-road vehicle collisions were between 12:01 – 18:00 (40.7%) and 18:01 – 24:00 (38.0%).

Comparison of Total Off-Road Vehicle Collisions
by Time of Occurrence and Collision Type
2001

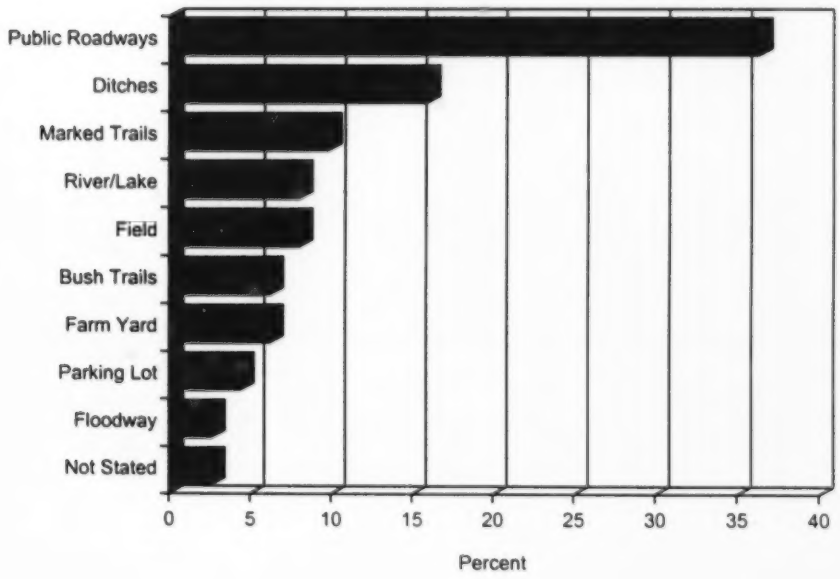


Collision Summary
By Location
2001

Location	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Public Roadway	2	31	8	41	36.3
Ditches	0	12	6	18	15.9
River/Lake	3	4	2	9	8.0
Field	0	5	4	9	8.0
Bush Trails/Winter Road	2	3	2	7	6.2
Farm Yard/Private Property	1	5	1	7	6.2
Marked/Groom Trails	1	5	5	11	9.8
Parking Lot	0	3	2	5	4.4
Lakeshore	0	0	0	0	0.0
Floodway/Diversion	0	1	2	3	2.6
Not Stated	0	3	0	3	2.6
Total	9	72	32	113	100.0

"Public roadways" accounted for the largest percentage of off-road vehicle collisions, at 36.3%, followed by "ditches", at 15.9%, and "marked/groom trails", at 9.8%.

Distribution of Total Off-Road Vehicle Collisions
by Collision Location
2001



Off-Road Vehicle Collision Victims by Age Group, Injury Type, and Sex 2001

Age Group	Injury Type						Total Victims
	Killed			Injured			
	Male	Female	Total	Male	Female	Total	
0-4	0	0	0	1	0	1	1
5-9	0	0	0	2	0	2	2
10-14	0	0	0	14	2	16	16
15-19	0	0	0	11	6	17	17
20-24	1	0	1	9	2	11	12
25-34	0	0	0	16	1	17	17
35-44	7	0	7	14	2	16	23
45-54	0	1	1	0	2	2	3
55-64	0	0	0	1	3	4	4
65>	1	0	1	3	0	3	4
Not Stated	0	0	0	0	0	0	0
Total	9	1	10	71	18	89	99

Male victims made up 80.8% (80) of all persons killed or injured, whereas females made up 19.2% (19). Of 99 victims, the age group 35-44 accounted for the highest percentage, at 23.3% (23). They were followed by the age groups 15-19 and 25-34, each at 17.2% (17).

Off-Road Vehicle Collision Victims by Safety Equipment and Injury Type 2001

Safety Equipment	Injury Type		Total Victims
	Killed	Injured	
Safety Helmet Worn	3	40	43
Safety Helmet Not Worn	4	29	33
Not Stated	3	8	11
Not Applicable	0	12	12
Total	10	89	99

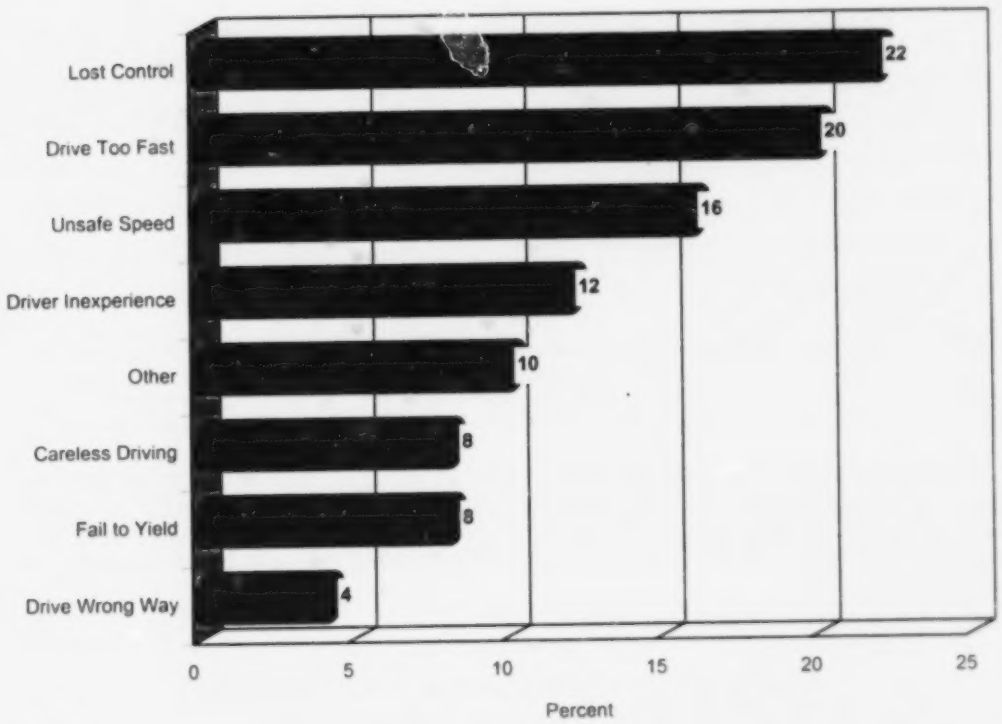
Of the total number of off-road vehicle collision victims, 33.3% (33) were reported as not wearing a safety helmet at time of collision occurrence. Safety helmet usage was unknown for a further 23.2% (23) of the victims.

Driver Involvement
by Driver Action and Collision Type
2001

Driver Action	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Drive Properly [1]	4	40	29	73	51.8
Follow Too Closely	0	1	0	1	0.7
Turn Improperly	0	1	0	1	0.7
Drive Too Fast For Conditions	4	5	1	10	7.1
Unsafe Operating Speed	1	7	0	8	5.7
Fail to Yield	0	4	0	4	2.8
Disobey Traffic Control	0	1	0	1	0.7
Drive Wrong Way	1	1	0	2	1.4
Back Unsafely	0	0	1	1	0.7
Careless Driving	0	2	2	4	2.8
Lost Control/Drive off Roadway	0	7	4	11	7.8
Take Avoiding Action	0	1	0	1	0.7
Driver Inexperience	0	5	1	6	4.3
Not Stated	3	12	3	18	12.8
Total	13	87	41	141	100.0

[1] No apparent improper driving action.

Comparison of At-Fault Driver Actions
in Off-Road Vehicle Collisions
2001



Other includes "avoiding action", "turning improperly", "following too closely", "backing unsafely", "disobey traffic control/officer".

At-fault driver actions accounted for 50 (35.5%) of all driver actions resulting in off-road vehicle collisions. Of these at-fault driving actions, "losing control/drive off roadway" (22.0%), "driving too fast for conditions" (20.0%), "unsafe operating speed" (16.0%), and "driver inexperience" (12.0%) were the most frequently identified driver actions contributing to off-road vehicle collisions.

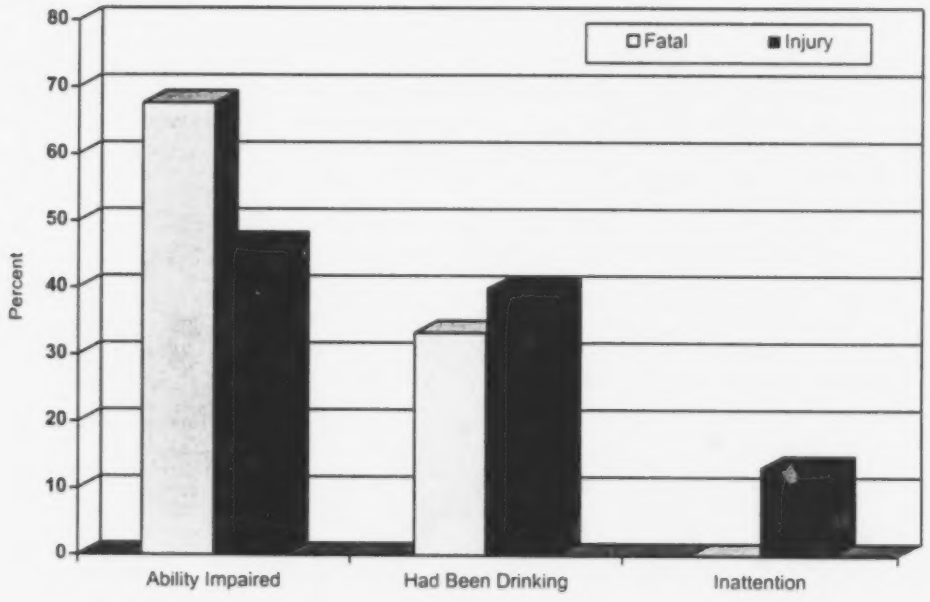
Driver Involvement
by At-Fault Human Condition Factors and Collision Type
2001

Human Condition	Collision Type			Total	%
	Fatal	Injury	P. Damage		
Apparently Normal	8	67	36	111	78.7
Distraction/Inattention	0	2	2	4	2.8
Ability Impaired by Alcohol	2	7	1	10	7.1
Had Been Drinking/Suspected Alcohol Use[1]	1	6	0	7	5.0
Lost Consciousness	0	0	1	1	0.7
Not Stated	2	5	1	8	5.7
Total	13	87	41	141	100.0

[1] These statistics are understated and represent only those collisions where alcohol involvement was apparent.

Of the 141 drivers involved in off-road vehicle collisions, 22 or 15.6% were known to have at-fault human condition factors. Of the 13 drivers involved in fatal off-road vehicle collisions, 3 or 23.1% were known to have at-fault human condition factors. Overall, "ability impaired by alcohol", "had been/suspected alcohol use", and "distraction and inattention" were reported as the most common at-fault human condition factors.

Comparison of At-Fault Human Condition Factors
by Fatal and Injury Collision Type
2001

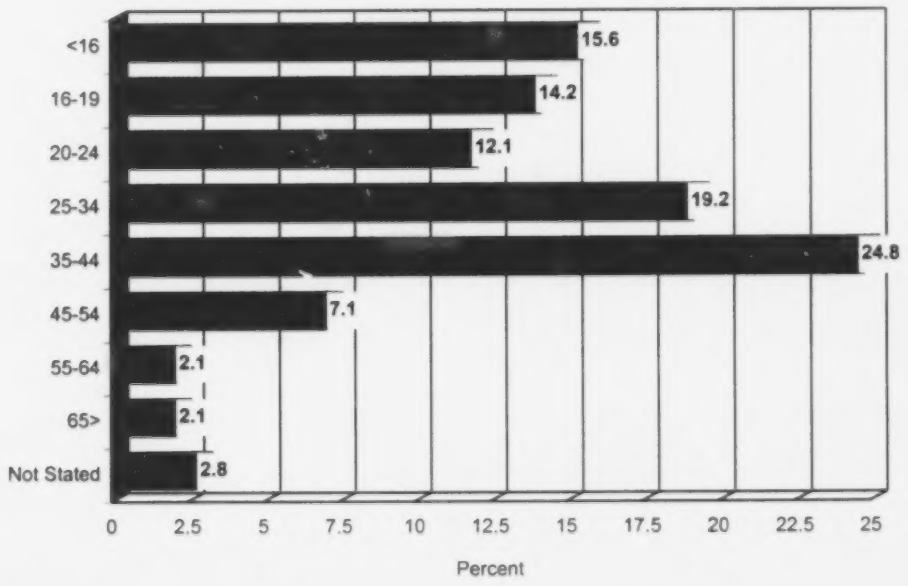


Driver Involvement
by Age Group and Collision Type
2001

Age Group	Collision Type			Total	%
	Fatal	Injury	P. Damage		
<16	0	17	5	22	15.6
16-19	0	13	7	20	14.2
20-24	1	11	5	17	12.1
25-34	1	16	10	27	19.2
35-44	8	20	7	35	24.8
45-54	2	4	4	10	7.1
55-64	0	2	1	3	2.1
65>	1	2	0	3	2.1
Not Stated	0	2	2	4	2.8
Total	13	87	41	141	100.0

Of the total number of drivers involved in off-road vehicle collisions, 24.8% were aged 35-44, 19.2% were aged 25-34, and 15.6% were under 16 years of age.

Distribution of Total Driver Involvement in Off-Road Vehicle Collisions
by Age Group
2001



Section 12

Alcohol-Related Criminal Code Offences

Total Alcohol-Related Criminal Code Offences by Accident/No Accident Involvement 1984 – 2000[1]

Year	Alcohol Content Over .08		Impaired Driving				Refuse Sample		Total
	253-B		253-A		255-2	255.3	254-5		
	No Accident	With Accident	No Accident	With Accident	Injury	Death	No Accident	With Accident	
1984	4045	525	461	100	0	0	501	95	5727
1985	4110	543	474	133	0	0	587	80	5927
1986	3802	528	490	132	22	4	560	113	5651
1987	3699	580	503	120	29	2	563	108	5604
1988	3395	535	467	146	33	2	559	115	5252
1989	3392	494	370	110	33	6	484	95	4984
1990	3276	421	332	73	28	2	411	73	4616
1991	3339	373	321	52	44	2	398	62	4591
1992	2683	335	269	55	41	3	321	45	3752
1993	2210	308	282	52	29	3	274	59	3217
1994	2208	308	344	61	34	2	292	70	3319
1995	2298	180	366	39	25	3	227	37	3175
1996	2133	134	303	31	24	0	227	23	2875
1997	2378	141	338	28	37	3	250	27	3202
1998	2413	74	377	27	36	1	274	17	3219
1999	2400	60	423	18	29	3	309	11	3253
2000	1945	14	488	5	34	4	241	4	2735
% Change 99-00	-19.0	-76.7	15.4	-72.2	17.2	33.3	-22.0	-63.6	-15.9

[1]Driver and Vehicle Licencing's alcohol statistic collection is structured to accommodate a "two-year" updating period due to a potential backlog in the court process. Consequently, there is a one-year delay in reporting alcohol statistics.

Overall, there has been a 51.6% decrease in the number of alcohol-related Criminal Code offences between 1986 and 2000, 5,651 to 2,735 respectively. Possible reasons for the decrease include the introduction of stiffer penalties for driving while under the influence of alcohol in 1986 and Manitoba's countermeasure program in 1989. These penalties may have accounted for an immediate 4.7% (276) decrease between 1985 and 1986, and a further decrease of 11.8% (667) between 1986 and 1989. Manitoba's countermeasure program may also have initiated a decrease of 7.4% (368) from 4,984 in 1989 to 4,616 in 1990 and a further 40.7% (1,881) decline to 2,735 in 2000. The level of law enforcement may also be a factor.

Total Alcohol-Related Criminal Code Offences[1] by Age Group 1986-2000

Age Group	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	% Change 86-00
<16	12	12	6	9	10	12	4	7	5	3	7	7	7	13	12	0.0
16-17	150	169	156	124	119	104	86	64	49	82	66	105	109	81	75	-50.0
18-20	752	784	654	622	583	520	426	286	363	364	366	430	349	412	345	-54.1
21-24	1176	1093	945	909	744	709	606	494	473	471	388	495	448	504	430	-63.4
25-29	1103	1061	1066	983	940	923	667	584	553	518	447	451	495	484	396	-64.1
30-34	802	801	745	755	704	728	624	543	566	547	394	440	459	445	368	-54.1
35-39	567	541	552	516	538	527	431	402	435	422	387	440	455	429	354	-37.6
40-44	365	441	416	392	341	389	365	292	288	278	267	302	306	330	298	-18.4
45-49	234	254	271	242	223	240	206	194	205	177	208	201	227	248	198	-15.4
50-54	177	179	174	163	179	176	129	146	138	111	151	130	163	151	102	-42.4
55-59	147	125	130	133	92	110	83	79	88	86	71	78	82	56	66	-55.1
60-64	103	84	83	65	73	71	62	67	86	59	66	50	49	46	42	-59.2
65-69	43	38	38	46	46	47	42	31	42	33	32	44	39	28	23	-46.5
70-74	14	14	12	19	19	26	13	22	24	11	10	18	25	15	14	0.0
75>	6	8	4	6	5	9	8	6	4	13	15	11	6	11	12	100.0
Total	5651	5604	5252	4984	4616	4591	3752	3217	3319	3175	2875	3202	3219	3253	2735	-51.6

[1] Includes alcohol content over .08, impaired driving causing injury and/or death, and refuse sample.

Between 1986 and 2000, the number of alcohol related Criminal Code offences declined substantially by 51.6% from 5,651 to 2,735. All age groups between 16 and 69 recorded declines in total alcohol-related Criminal Code offences between 1986 and 2000. These ranged from substantial declines of 59.2%, 63.4% and 64.1% for those aged 60-64, 21-24, and 25-29 respectively.

Comparison of Percentage Change Statistics by Selected Age Groups
1986 - 2000

Comparison of Alcohol-Related Criminal Code Offences by Active Licenced Drivers and Selected Age Group 1986, 1990 and 2000[1]

Age Group	1986			1990			2000		
	Total Alcohol	% Total Alcohol	% Active Licenced Drivers	Total Alcohol	% Total Alcohol	% Active Licenced Drivers	Total Alcohol	% Total Alcohol	% Active Licenced Drivers
16-24[2]	2090	37.0	19.1	1456	31.5	16.3	862	31.5	14.4
25-44	2837	50.2	45.6	2523	54.6	46.4	1416	51.8	39.6
45-64	661	11.7	24.4	567	12.3	25.0	408	14.9	31.2
65>	63	1.1	10.9	73	1.6	12.3	49	1.8	14.8
Total	5651	100.0	100.0	4619	100.0	100.0	2735	100.0	100.0

[1]Years chosen to reflect changes to Criminal Code penalties and the introduction of Manitoba's countermeasure program.
[2]Includes statistics for individuals <16 who were convicted of alcohol-related Criminal Code offence but who are not licenced drivers.

The percentage of alcohol-related Criminal Code alcohol offences accounted for by drivers under age 25 is consistently double their portion of the licenced driver population. The percentage of total offences held by drivers aged 25-44 ranges from 10-30% higher than their portion of the licenced driver population. In sharp contrast, drivers aged 45-64 accounts for a share of offences about 50% below their percentage of licenced drivers.

Licenced drivers up to the age of 24 consistently record the highest rate of Criminal Code alcohol offences. Although accounting for 19.1% of all licenced drivers in 1986, they committed 37.0% of all offences. In 2000, they accounted for 14.4% of licenced drivers and 31.5% of offences.

Drivers between the ages of 25 to 44 years continue to record the highest incidence of alcohol-related Criminal Code offences and the highest percentage of licenced drivers. In the years 1986, 1990, and 2000 respectively, drivers in this group made up 45.6%, 46.4% and 39.6% of licenced drivers and 50.2% (2,837), 54.6% (2,523) and 51.8% (1,416) of Criminal Code offences.

Drivers in the age group 45-64 made up 24.4%, 25.0% and 31.2% of licenced drivers and 11.7% (661), 12.3% (567) and 14.9% (408) of Criminal Code offences in 1986, 1990 and 2000 respectively.

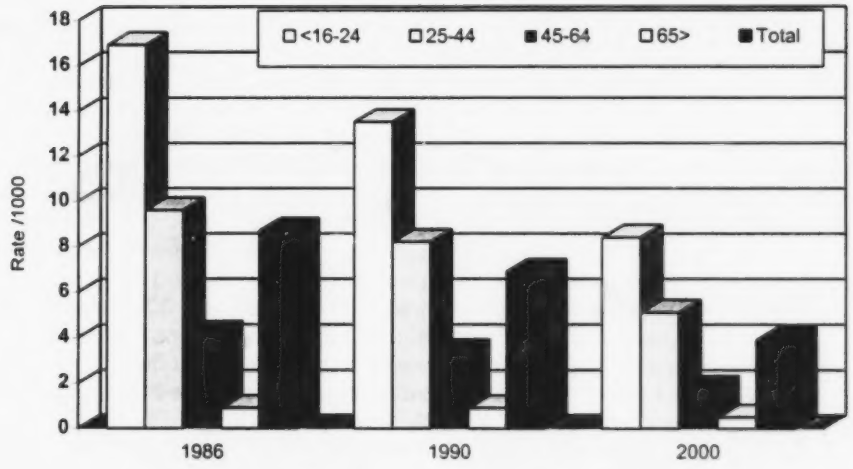
Older drivers are less likely to be involved in alcohol-related Criminal Code offences. Drivers over 64 made up 10.9%, 12.3% and 14.8% of the total licenced drivers but accounted for only 1.1% (63), 1.6% (73) and 1.8% (49) of Criminal Code offences in 1986, 1990 and 2000.

Ratio of Alcohol-Related Criminal Code Offences to Licenced Drivers by Selected Age Group 1986, 1990 and 2000

Age Group	1986			1990			2000		
	Alcohol Offences [1]	Licenced Drivers	Rate /1000	Alcohol Offences	Licenced Drivers	Rate /1000	Alcohol Offences	Licenced Drivers	Rate /1000
<16-24	2090	123707	16.9	1456	108060	13.5	862	102304	8.4
25-44	2837	294105	9.6	2523	308301	8.2	1416	279097	5.1
45-64	661	157412	4.2	567	166000	3.4	408	220897	1.8
65>	63	70251	0.9	73	82203	0.9	49	104214	0.5
Total	5651	645475	8.7	4619	664564	6.9	2735	706512	3.9

[1] *For comparative purposes the report assumes each alcohol-related Criminal Code conviction is for a single licenced driver although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year.*

Comparison of Relative Involvement Rate /1000 by Age Group 1986, 1990 and 2000



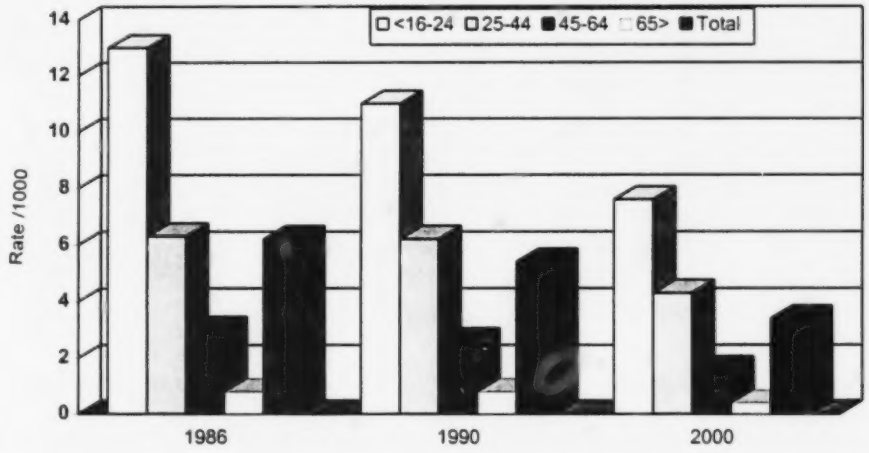
- For the period examined, drivers convicted of alcohol related offences decreased by 51.6% from 5,651 in 1986 to 2,735 in 2000. The driver involvement rate declined by 55.2%, from 8.7/1,000 to 3.9/1,000.
- For every 1,000 licenced drivers aged up to 24, there were 16.9, 13.5 and 8.4 drivers who had committed an alcohol-related Criminal Code offence for each respective year. The 2000 rate for this age group was 50.3% below the 1986 rate.
- The rates for young drivers are about 40% higher than the rates for drivers aged 25-44, 9.6, 8.2, and 5.1 and 75% higher than for drivers aged 45-64, at 4.2, 3.4 and 1.8.
- The 65 and older drivers have the lowest rate of involvement per 1,000 drivers, 0.9 in both 1986 and 1990 and 0.5 in 2000.

Driver Involvement in First Occurrence Alcohol-Related Criminal Code Offences by Age Group 1986, 1990 and 2000

Age Group	1986			1990			2000		
	Alcohol Offences [1]	Licenced Drivers	Rate /1000	Alcohol Offences	Licenced Drivers	Rate /1000	Alcohol Offences	Licenced Drivers	Rate /1000
<16-24	1606	123707	13.0	1185	108060	11.0	775	102304	7.6
25-44	1874	294105	6.3	1917	308301	6.2	1204	279097	4.3
45-64	476	157412	3.0	436	166000	2.6	356	220897	1.6
65>	57	70251	0.8	63	82203	0.8	46	104214	0.4
Total	4013	645475	6.2	3601	664564	5.4	2381	706512	3.4

[1]For comparative purposes the report assumes each alcohol-related Criminal Code conviction is for a single licenced driver although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year.

Comparison of First Occurrence Relative Involvement Rate /1000 by Age Group 1986, 1990 and 2000



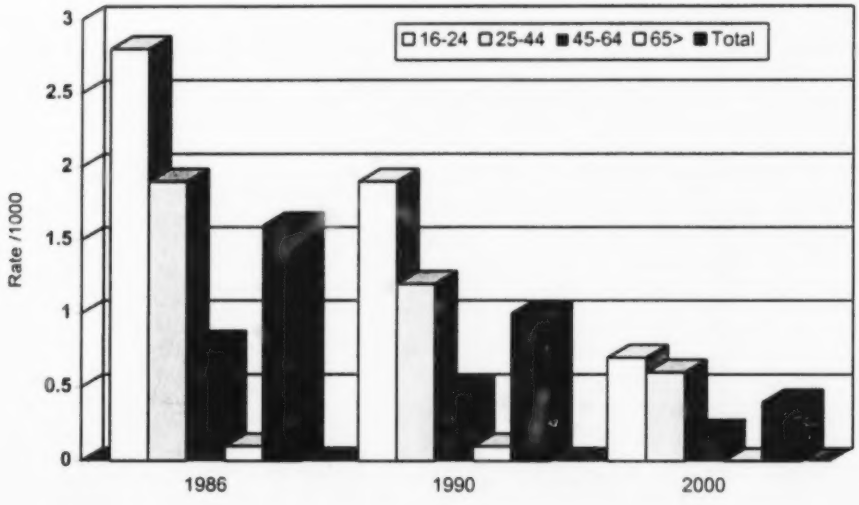
- The number of drivers convicted of first offence alcohol-related convictions decreased by 40.7% from 4,013 in 1986 to 2,381 in 2000.
- Comparing the rates for 1986 and 2000, there was a 51.7% drop for the <16-24 group, 35.7% decrease for the 25-44 group, 25.2% decrease for the 45-64 age group, and a 19.3% decrease for the 65> age group.
- For every 1,000 licenced drivers within the age range of <16-24, there are 13.0, 11.0 and 7.6 drivers who have committed an alcohol-related offence in each respective year. The relative involvement rate for these young drivers is nearly double the rate for the 25-44 year old drivers (6.3, 6.2 and 4.3) and four times as high than drivers in the age group 45-64 (3.0, 2.6 and 1.6). The 65 and older drivers have the lowest rate of involvement per 1,000 drivers, 0.8 in both 1986 and 1990, and 0.4 in 2000.

Driver Involvement in Second Occurrence Alcohol-Related Criminal Code Offences by Age Group 1986, 1990 and 2000

Age Group	1986			1990			2000		
	Alcohol [1] Convictions	Licenced Drivers	Rate /1000	Alcohol Convictions	Licenced Drivers	Rate /1000	Alcohol Convictions	Licenced Drivers	Rate /1000
<16-24	350	123707	2.8	204	108060	1.9	76	102304	0.7
25-44	551	294105	1.9	373	308301	1.2	164	279097	0.6
45-64	121	157412	0.8	88	166000	0.5	44	220897	0.2
65>	4	70251	0.1	6	82203	0.1	2	104214	-.-
Total	1026	645475	1.6	671	664564	1.0	286	706512	0.4

[1] *For comparative purposes, the report assumes each alcohol-related Criminal Code conviction is for a single licenced driver although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year.*

Comparison of Second Occurrence Relative Involvement Rate /1000 by Age Group 1986, 1990 and 2000



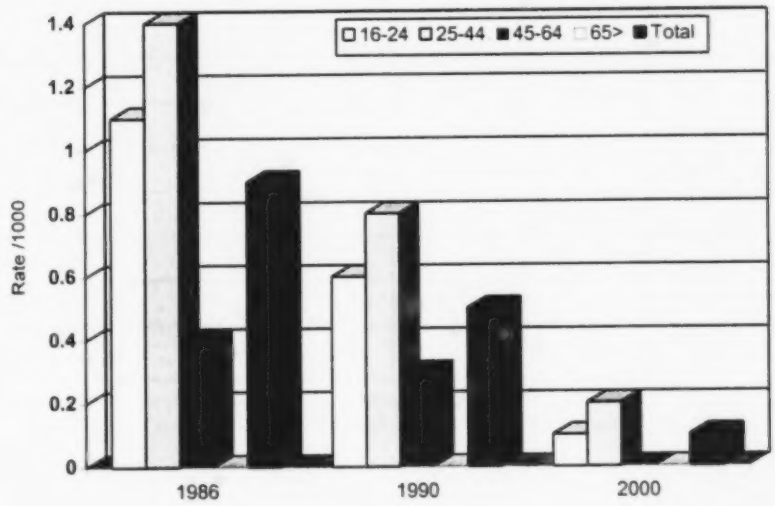
- Overall, the total number of drivers convicted of second offence alcohol-related Criminal Code offences decreased by 72.1% from 1,026 in 1986 to 286 in 2000.
- The rate for drivers in the highest involved age group <16-24 dropped 78.3% from 350 in 1986 to 76 in 2000. Similarly, the second ranked age group 25-44 recorded a 70.2% decrease from 551 in 1986 to 164 in 2000.
- For every 1,000 licenced drivers within the age range of <16-24, there are 2.8, 1.9 and 0.7 drivers who had committed a second alcohol-related Criminal Code offence. In 1986, the relative involvement rate for <16-24 year old drivers was 32.1% greater than the rate for the 25-44 year old licenced drivers and 71.4% greater than the rate for 45-64 year old drivers. In 1990, the rate for <16-24 year old drivers was 36.8% greater than the rate for the 25-44 year old group and 73.7% greater than the rate for the 45-64 age group. In 2000, the relative involvement rate for drivers in the <16-24 age group was 14.3% greater than for the 25-44 age group and 71.4% greater than for the 45-64 age group.
- Drivers over the age of 65 maintained a relative involvement rate of 0.1 per 1,000 drivers for 1986 and 1990. The rate for 2000 was negligible.

Driver Involvement in Third and Subsequent Occurrence Alcohol-Related Criminal Code Offences by Selected Age Group 1986, 1990 and 2000

Age Group	1986			1990			2000		
	Alcohol [1] Convictions	Licenced Drivers	Rate /1000	Alcohol Convictions	Licenced Drivers	Rate /1000	Alcohol Convictions	Licenced Drivers	Rate /1000
<16-24	134	123707	1.1	67	108060	0.6	11	102304	0.1
25-44	412	294105	1.4	233	308301	0.8	48	279097	0.2
45-64	64	157412	0.4	43	166000	0.3	8	220897	-.-
65>	2	70251	-.-	1	82203	-.-	1	104214	-.-
Total	612	645475	0.9	344	664564	0.5	68	706512	0.1

[1] *For comparative purposes, the report assumes each alcohol-related Criminal Code conviction is for a single licenced driver, although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year.*

Comparison of Third and Subsequent Occurrence Relative Involvement Rate /1000 by Selected Age Group 1986, 1990 and 2000



- The total number of drivers convicted of third and subsequent occurrence alcohol-related Criminal Code offences decreased by 88.9% from 612 in 1986 to 68 in 2000.
- Drivers in the age group 25-44 recorded the highest involvement rate. However, their involvement rates declined by 88.3% from 412 in 1986 to 48 in 2000. The <16-24 age group, which had the second highest involvement rate, decreased by 91.8% from 134 to 11.
- The third highest age group 45-64 decreased by 87.5% from 64 in 1986 to 8 in 2000.

Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type 2000*

Age Group	Alcohol Content Over .08		Impaired Driving				Refuse Sample		Total
	253-B		253-A		255-2	255-3	254-5		
	No Accident	With Accident	No Accident	With Accident	Injury	Death	No Accident	With Accident	
<16	7	0	5	0	0	0	0	0	12
16-17	58	1	10	0	2	0	4	0	75
18-20	267	1	56	0	9	2	10	0	345
21-24	335	1	67	0	1	0	25	1	430
25-29	292	0	62	1	8	0	32	1	396
30-34	253	2	62	0	6	2	43	0	368
35-39	237	3	67	2	4	0	40	1	354
40-44	194	2	66	0	1	0	34	1	298
45-49	125	1	41	1	2	0	28	0	198
50-54	74	0	22	1	0	0	5	0	102
55-59	40	0	16	0	1	0	9	0	66
60-64	26	3	7	0	0	0	6	0	42
65-69	17	0	5	0	0	0	1	0	23
70-74	8	0	2	0	0	0	4	0	14
75>	12	0	0	0	0	0	0	0	12
Total	1945	14	488	5	34	4	241	4	2735

** Driver and Vehicle Licencing's alcohol statistics collection is structured to accommodate a "two year" updating period due to a potential backlog in the court process. Consequently, there is a one-year delay in reporting alcohol statistics.*

PART TWO

Traffic Collision Statistics 2001

Provincial Trunk Highways and Provincial Roads

Manitoba
Transportation and
Government Services
Traffic Engineering

Preface

The following report provides an analysis of reported traffic collisions on record that have been identified as occurring on the provincial highway system. The purpose of producing these statistics is to provide an overview of the types of collisions that occur on the highway system; to attempt to identify collision prone locations; and to provide a basis of comparison for these collision prone locations. It is a continuation of the "2000 Traffic Collision Statistics on Manitoba Provincial Trunk Highways and Provincial Roads" compiled by the Traffic Engineering Branch.

In Section 1, the traffic collision statistics are summarized according to the categories urban, suburban and rural and by the total number of collisions occurring in each. These categories are defined according to the legal, posted speed limit on the provincial highway system: the urban category - 50 or 60 km/h; suburban category - 70 or 80 km/h; and rural category - 90 or 100 km/h. Section 2, construction-related collisions, provides an overview of traffic collisions that were reported to occur within construction or maintenance zones. The last section, Comparison of Intersection Collision Data, presents an overview of traffic collisions by intersection. The first table compares the intersections on the National Highway System. The rest of the intersection data is presented according to eleven intersection types based on their functional classification, and whether they are in a rural, suburban or urban environment.

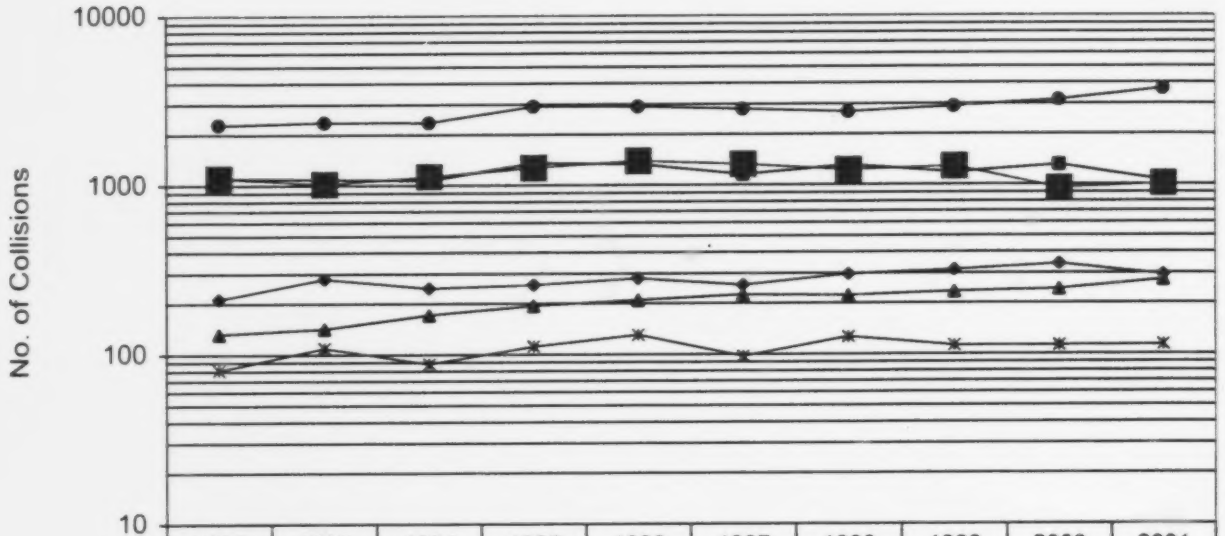
In 2001 there were 6270 reported collisions on record that involved 8351 vehicles. Slightly over 74% of the total collisions occurred on the rural highway system.

Users of this report are invited to comment on the format of the data provided and to make suggestions as to any other data that would be useful. The Traffic Engineering Branch is located at 1510 - 215 Garry Street, Winnipeg, telephone: (204) 945-3781 fax: (204) 948-2554.

Section 1

Provincial Highway Collisions

Collision Trends by Posted Speed Limit
1992 - 2001



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
100	2276	2361	2349	2918	2916	2806	2697	2898	3162	3683
90	1106	1022	1126	1271	1392	1327	1225	1284	950	1015
80	132	142	171	194	209	224	222	233	241	274
70	212	279	246	257	280	256	296	313	339	293
60	81	109	88	111	130	97	126	112	112	113
50	1104	1087	1070	1353	1330	1156	1311	1185	1312	1060
Total*	4911	5000	5050	6104	6257	5866	5877	6025	6116	6438

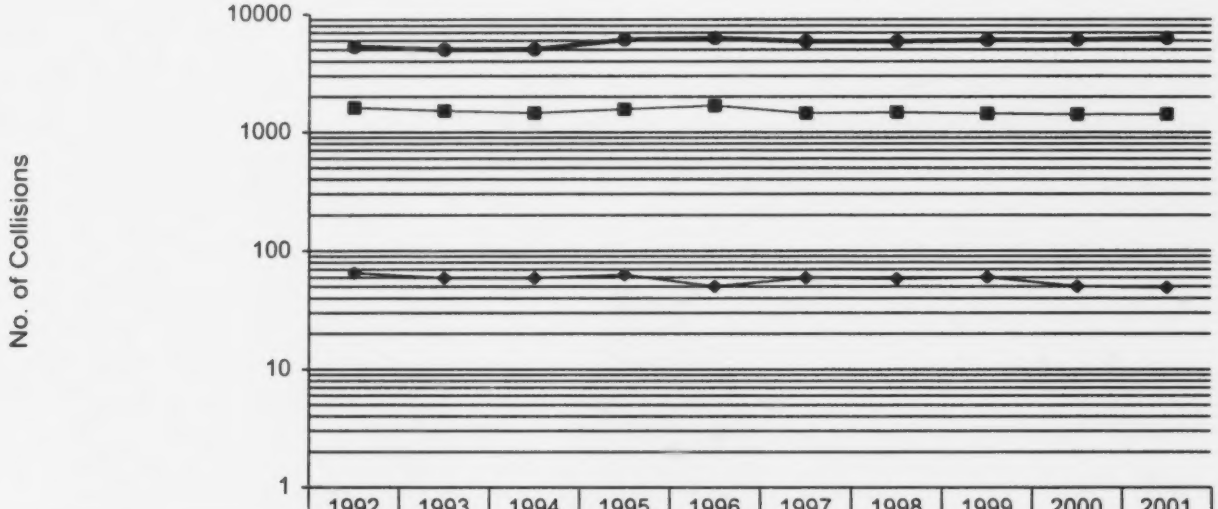
In the late summer of 1999 the legal speed limit on approximately 2200 kilometres of highway was raised from 90 km/h to 100 km/h. This increases the total length of highways in the province of Manitoba at 100 km/h to approximately 9500 kilometres.

- The total number of collisions by the posted speed limit represents locations where the speed limit on intersections may be different. As a result some collisions will be counted more than once.

By Severity and Category
2001

Severity	Category			Total
	Rural	Suburban	Urban	
Fatal	40	6	3	49
Injury	946	147	277	1370
Property Damage	3660	360	831	4851
Total	4646	513	1111	6270

Collision History
by Severity

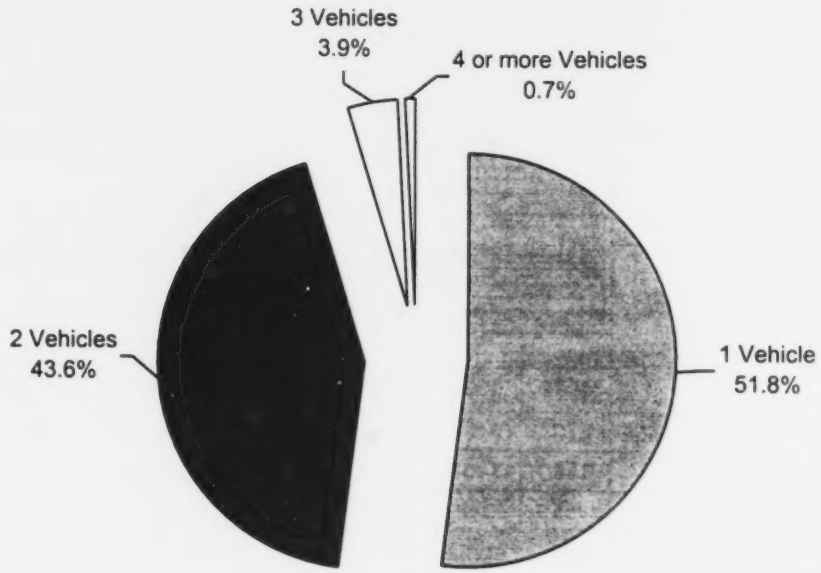


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Property Damage	3707	3488	3598	4539	4582	4421	4407	4585	4646	4851
Injury	1550	1453	1393	1502	1625	1386	1412	1380	1365	1370
Fatal	65	59	59	63	50	59	58	60	50	49
Total	5322	5000	5050	6104	6257	5866	5877	6025	6031	6270

By Number of Vehicles Involved and Category 2001

No. of Vehicles	No. of Collisions	Category			Total
		Rural	Suburban	Urban	
1	4328	3878	244	206	4328
2	1819	1454	512	1672	3638
3	109	102	33	192	327
4	12	28	4	16	48
5	2	0	5	5	10
Total	6270	5462	798	2091	8351

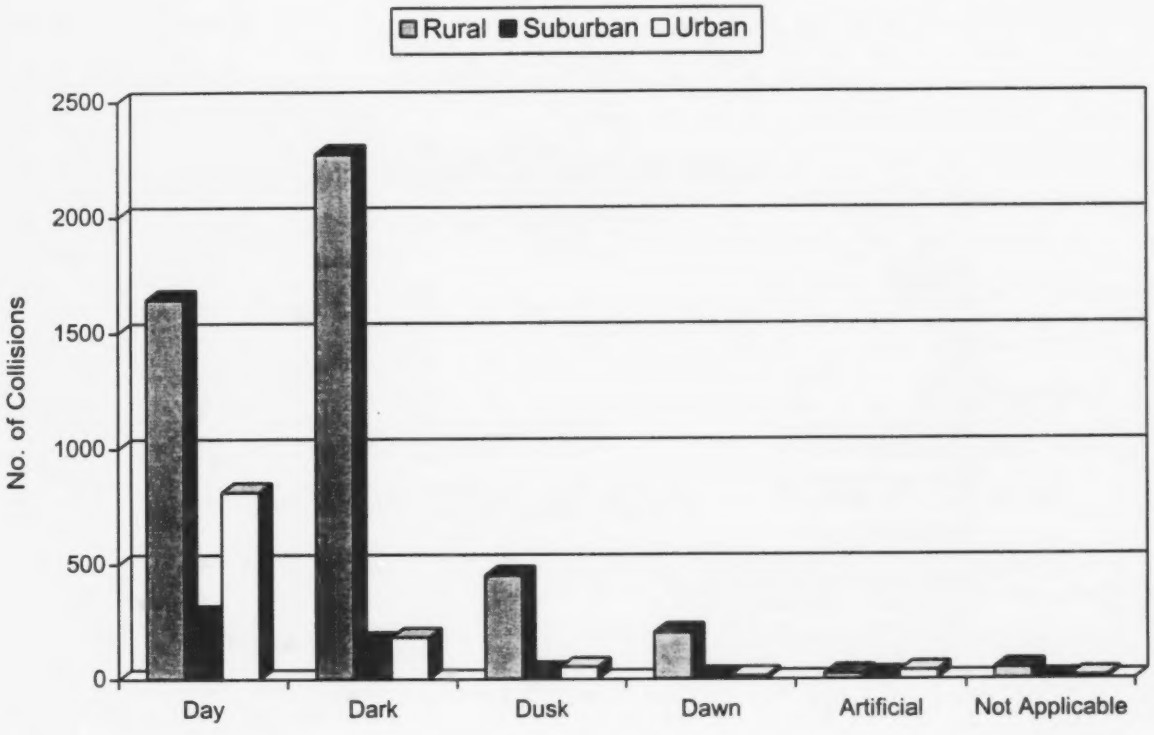
of Collisions by Number of Vehicles Involved 2001



By Light Condition and Category
2001

Condition	Category			Total
	Rural	Suburban	Urban	
Day	1646	280	812	2738
Dawn	203	13	14	230
Dusk	452	35	53	540
Dark	2272	164	182	2618
Artificial	24	16	38	78
Not Applicable	49	5	12	66
Total	4646	513	1111	6270

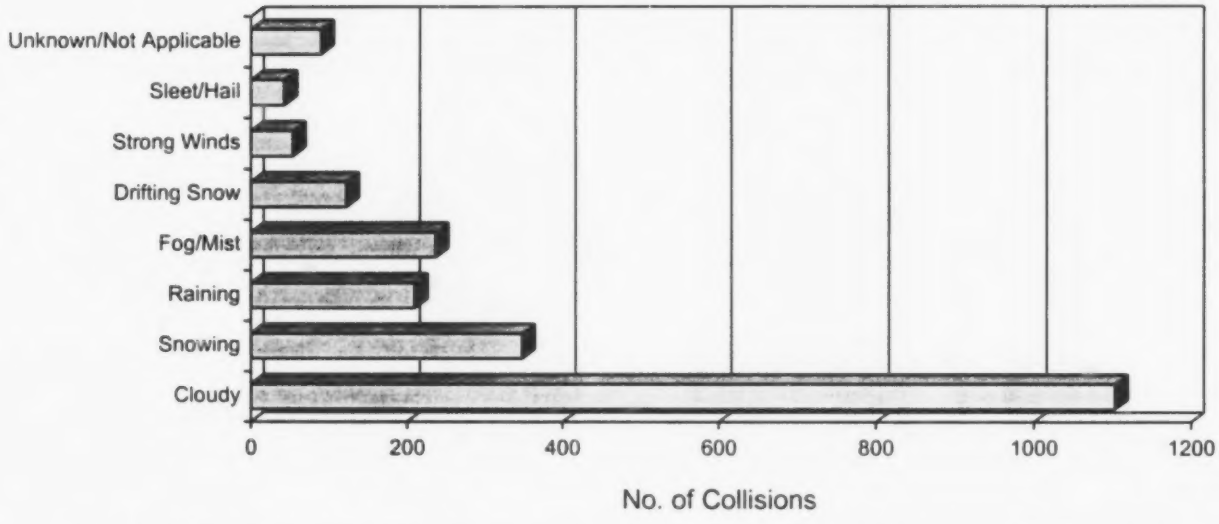
Collisions by Light Conditions
2001



By Weather Condition and Category
2001

Condition	Category			Total
	Rural	Suburban	Urban	
Clear	3019	319	718	4056
Cloudy	745	108	250	1103
Raining	142	19	49	210
Snowing	267	32	49	348
Fog or Mist	209	13	15	237
Smoke or Dust	6	0	1	7
Freezing Rain/Sleet/Hail	37	2	4	43
Drifting Snow	107	10	5	122
Strong Winds	48	2	4	54
Unknown	61	8	15	84
Not Applicable	5	0	1	6
Total	4646	513	1111	6270

Collisions by Weather Condition
2001

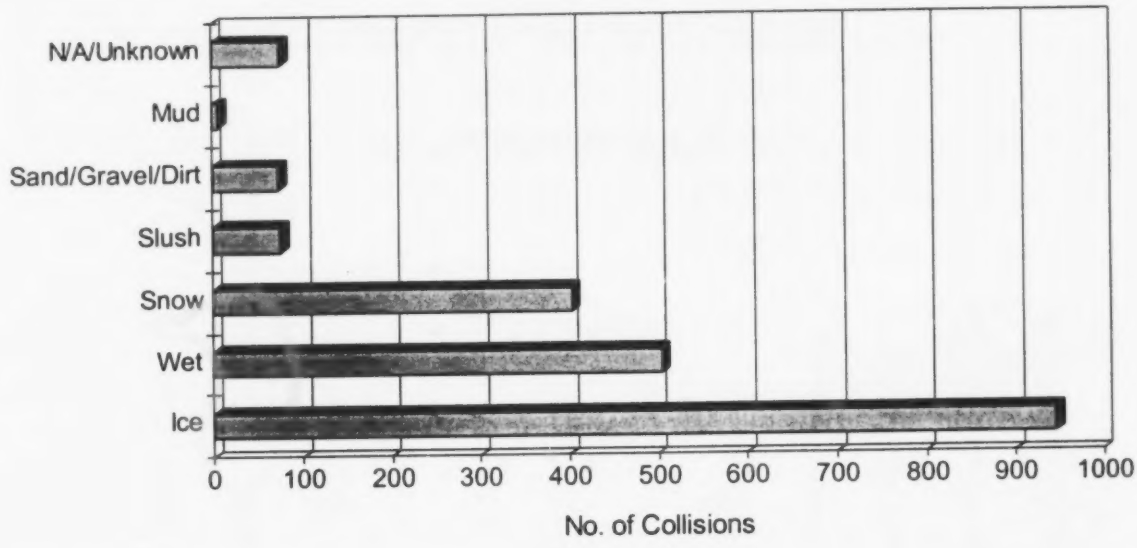


Note: The "Clear" condition has been excluded from the graph to present the remaining conditions in a clearer manner.

By Road Surface Condition and Category
2001

Condition	Category			Total
	Rural	Suburban	Urban	
Dry	3139	329	720	4188
Wet	323	50	131	504
Mud	5	0	0	5
Snow	297	30	76	403
Ice	705	88	152	945
Slush	58	6	11	75
Loose Sand/Gravel/Dirt	62	5	7	74
Fresh Oil	1	0	0	1
Not Applicable & Unknown	56	5	14	75
Total	4646	513	1111	6270

Collisions by Road Surface Condition
2001

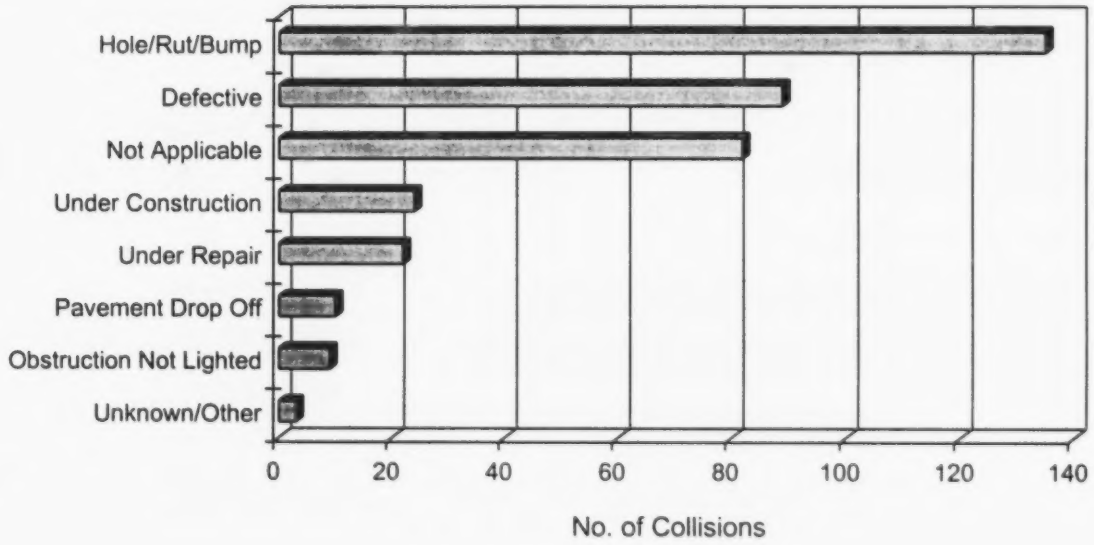


Note: The "Dry" condition has been excluded from the graph to present the remaining conditions in a clearer manner.

By Road Condition and Category
2001

Condition	Category			Total
	Rural	Suburban	Urban	
Good	4338	487	1071	5896
Defective	75	4	10	89
Under Repair	20	1	1	22
Under Construction	16	3	5	24
Obstruction Not Lighted	6	2	1	9
Hole/Rut/Bump	117	7	11	135
Pavement Drop Off	8	2	0	10
Unknown/Other	3	0	0	3
Not Applicable	63	7	12	82
Total	4646	513	1111	6270

Collisions by Road Condition
2001

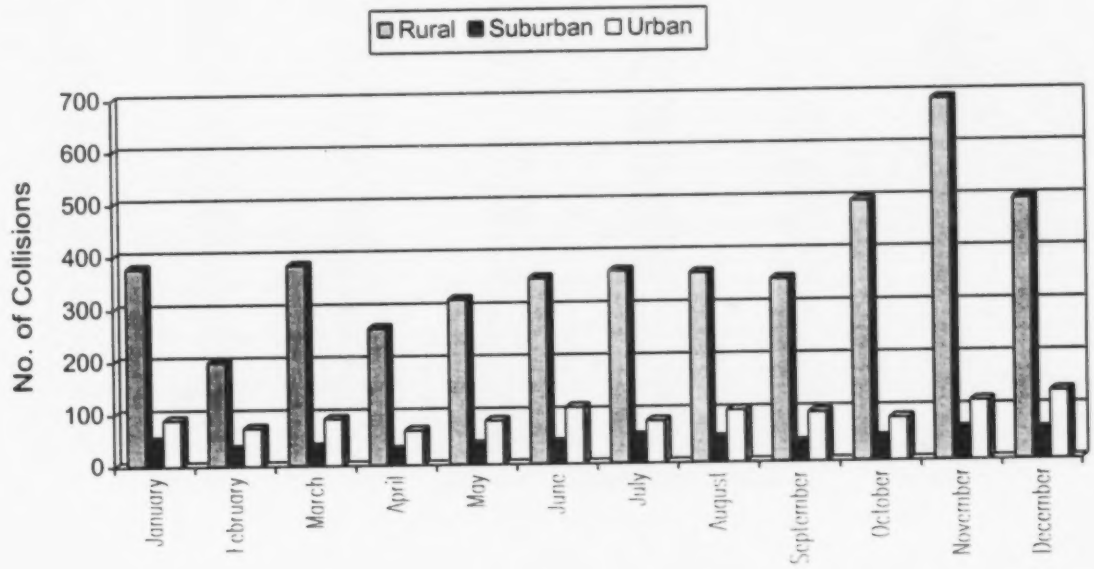


Note: The "Good" condition has been excluded from the graph to present the remaining conditions in a clearer manner.

By Month of Occurrence and Category
2001

Month	Category			Total
	Rural	Suburban	Urban	
January	378	49	89	516
February	199	33	73	305
March	382	36	90	508
April	262	29	67	358
May	315	38	84	437
June	354	40	108	502
July	366	51	81	498
August	361	45	100	506
September	348	36	94	478
October	495	43	82	620
November	689	58	113	860
December	497	55	130	682
Total	4646	513	1111	6270

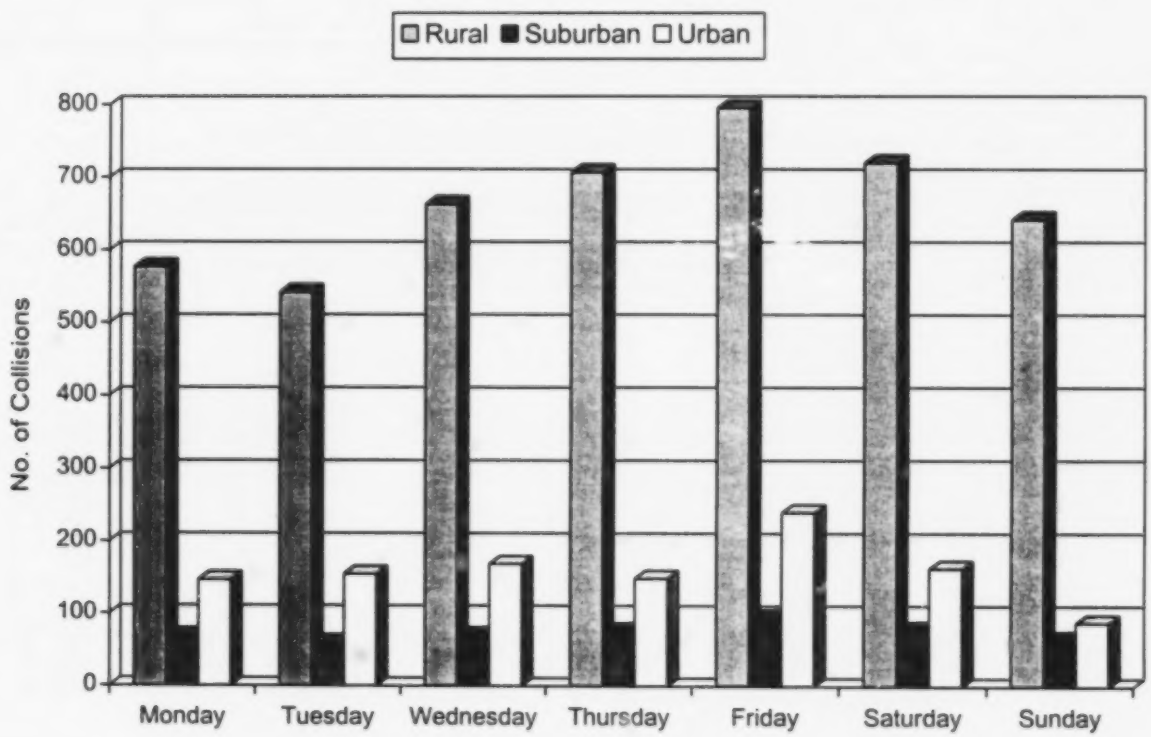
Collisions by Month of Occurrence and Category
2001



By Day of Week and Category
2001

Day of Week	Category			Total
	Rural	Suburban	Urban	
Monday	577	69	147	793
Tuesday	542	60	155	757
Wednesday	663	70	169	902
Thursday	707	76	149	932
Friday	795	95	240	1130
Saturday	720	78	163	961
Sunday	642	65	88	795
Total	4646	513	1111	6270

Collisions by Day of the Week and Category
2001



By Hour of Day and Category
2001

Hour	Category			Total
	Rural	Suburban	Urban	
00:01 - 01:00	122	11	13	146
01:01 - 02:00	101	7	15	123
02:01 - 03:00	78	6	6	90
03:01 - 04:00	69	9	10	88
04:01 - 05:00	58	6	4	68
05:01 - 06:00	97	8	6	111
06:01 - 07:00	202	17	14	233
07:01 - 08:00	251	16	21	288
08:01 - 09:00	146	23	41	210
09:01 - 10:00	119	19	38	176
10:01 - 11:00	117	17	60	194
11:01 - 12:00	124	28	60	212
12:01 - 13:00	115	19	86	220
13:01 - 14:00	121	18	83	222
14:01 - 15:00	136	18	81	235
15:01 - 16:00	156	28	102	286
16:01 - 17:00	179	42	115	336
17:01 - 18:00	327	48	90	465
18:01 - 19:00	331	32	55	418
19:01 - 20:00	341	32	42	415
20:01 - 21:00	296	20	38	354
21:01 - 22:00	380	24	33	437
22:01 - 23:00	364	22	31	417
23:01 - 24:00	262	28	24	314
Not Stated	154	15	43	212
Total	4646	513	1111	6270

By Vehicle Type and Category
2001

Vehicle Type	Category			Total
	Rural	Suburban	Urban	
Automobile	2796	450	1242	4488
Mini Van/Multi Purpose Van	579	72	176	827
Van under 4500 kg	159	20	67	246
Pick Up under 4500 kg	1372	156	458	1986
Truck over 4500 kg (Unit Chassis)	135	18	30	183
Power Unit for Semi-Trailer	205	31	24	260
Truck/Camper	7	1	0	8
Motorhome	3	1	2	6
Truck (Other)	128	31	38	197
School Bus	4	1	3	8
Transit Bus (Urban)	1	0	1	2
Inter-City Bus	0	0	1	1
Bus (Other)	2	1	2	5
Motorcycle/Scooter	25	6	11	42
Bicycle	4	2	12	18
Ambulance	1	1	0	2
Fire	0	0	1	1
Police	10	1	4	15
Farm Equipment	11	0	1	12
Construction Equipment	4	3	1	8
Snowmobile	3	0	0	3
All-Terrain Vehicle	0	0	2	2
Pedestrian	13	3	15	31
Total	5462	798	2091	8351

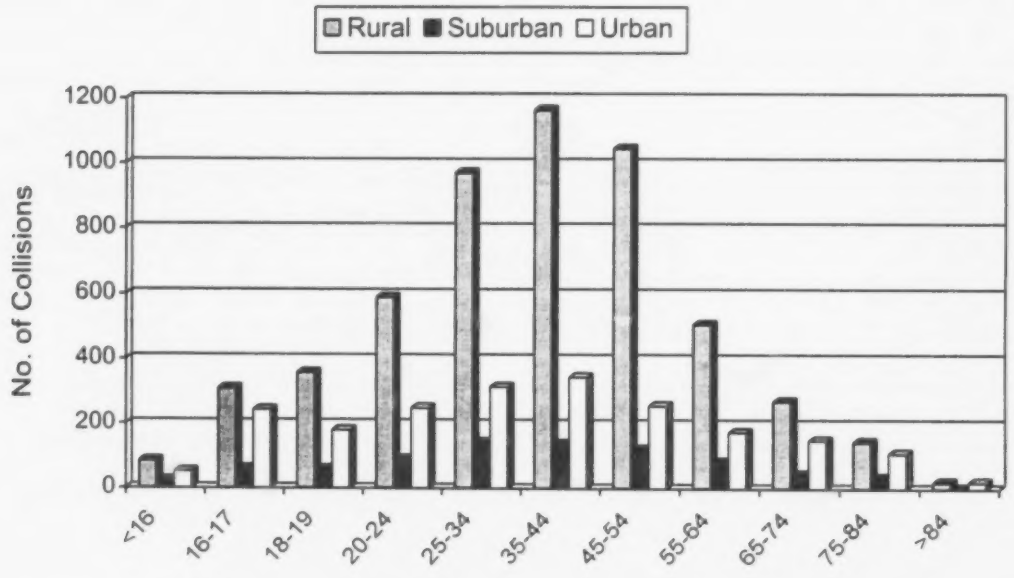
By Collision Configuration and Category
2001

Configuration	Category			Total
	Rural	Suburban	Urban	
Rear End	208	102	337	647
Head On	33	5	10	48
Side Swipe (Opposite Direction)	42	8	11	61
Side Swipe (Same Direction)	78	14	62	154
Overtaking	50	11	12	73
Right Turn (Rear End)	4	0	7	11
Right Turn (Head On)	4	4	5	13
Left Turn (Head On)	11	5	12	28
Left Turn (Rear End)	9	6	14	29
Left Turn (Classic)	26	34	89	149
Intersection (90 Degrees)	151	41	224	416
Off Road – Right	556	42	27	625
Off Road - Left	432	39	15	486
Fixed Object	100	16	44	160
Parking	1	1	18	20
Pedestrian	8	3	15	26
Other	2933	182	209	3324
Total	4646	513	1111	6270

Driver/Pedestrian Involvement By Age Group and Category 2001

Age Group	Category			Total
	Rural	Suburban	Urban	
<16	85	24	52	161
16-17	309	61	243	613
18-19	358	59	180	597
20-24	589	90	249	928
25-34	970	142	314	1426
35-44	1164	138	344	1646
45-54	1045	121	256	1422
55-64	506	82	174	762
65-74	270	44	149	463
75-84	145	35	109	289
>84	21	2	21	44
Total	5462	798	2091	8351

Driver/Pedestrian Involvement in Provincial Highway Collisions By Age Group and Category 2001

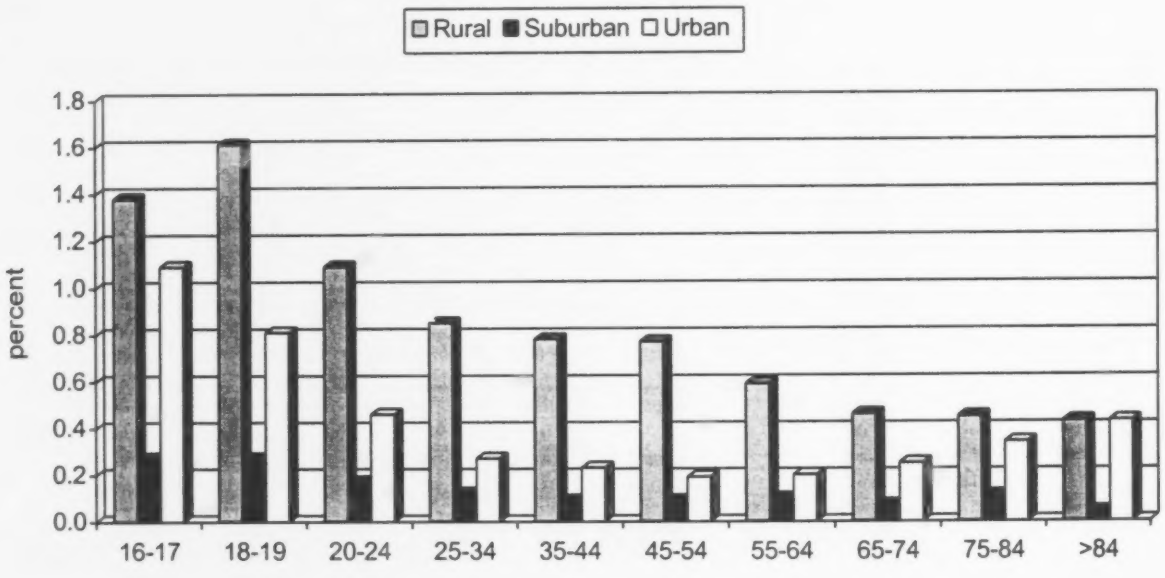


Percentage of Licenced Drivers Involved in Collisions by Age Group and Category* 2001

Age Group	Total Licenced Drivers	Category			Total (%)
		Rural (%)	Suburban (%)	Urban (%)	
16-17	22390	1.38	0.27	1.09	2.74
18-19	22196	1.61	0.27	0.81	2.69
20-24	54190	1.09	0.17	0.46	1.71
25-34	114519	0.85	0.12	0.27	1.25
35-44	148413	0.78	0.09	0.23	1.11
45-54	134976	0.77	0.09	0.19	1.05
55-64	86069	0.59	0.10	0.20	0.89
65-74	58691	0.46	0.07	0.25	0.79
75-84	32337	0.45	0.11	0.34	0.89
>84	4835	0.43	0.04	0.43	0.91

* The data contained in this table is calculated by dividing the number of reported collisions within each age group into the total number of licenced drivers (see Page 13, Section 2, Part 1, Driver Licensing). It is assumed that each category is exposed to all drivers licenced within the province.

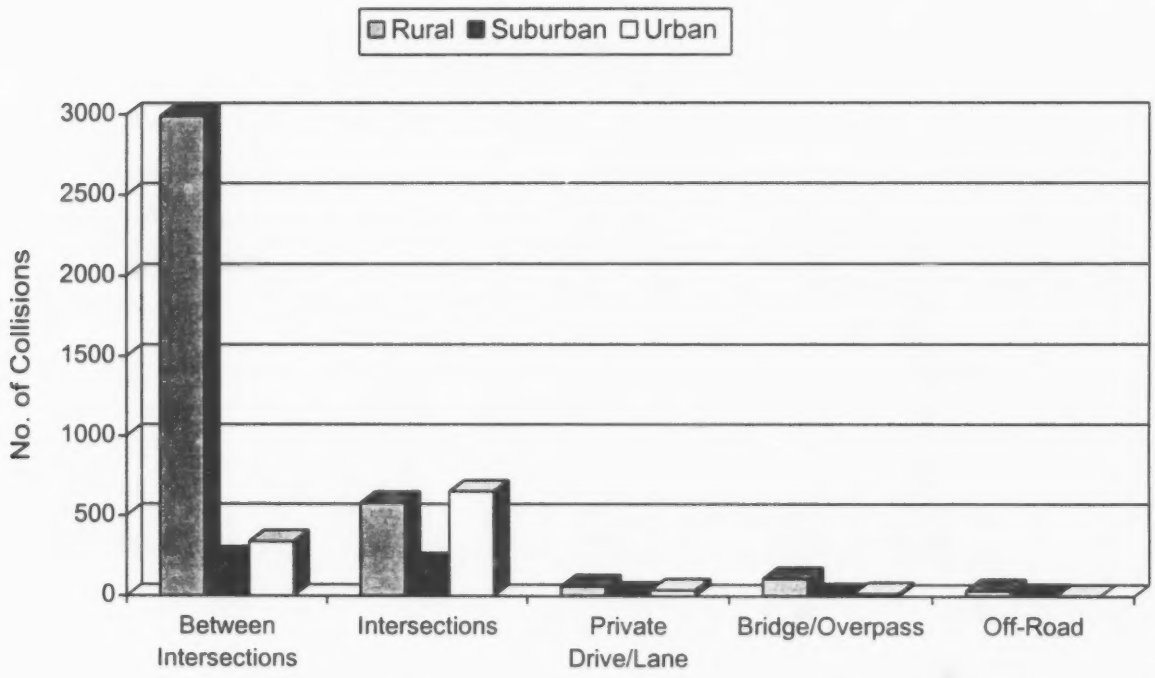
Percentage of Provincial Highway Collisions By Age and Category



By Collision Site Type and Category
2001

Site Type	Category			Total
	Rural	Suburban	Urban	
Intersection	579	196	651	1426
Between Intersections	2991	237	338	3566
Intersection of Private Drive/Lane	61	15	37	113
Railroad Level Crossing	20	4	8	32
Bridge/Overpass	108	8	16	132
Tunnel/Underpass	3	1	0	4
Off-Road	35	4	2	41
Passing/Climbing Lane	24	2	4	30
Not Applicable	824	46	55	925
Unknown/Other	1	0	0	1
Total	4646	513	1111	6270

Collisions by Top Five Site Types and Category
2001



Vehicle Involvement
by Sequence of Events, Collision With and Category
2001

Part 1

Event or Collision With	Category			Total
	Rural	Suburban	Urban	
Ditch/Embankment/Earth Slope	598	57	24	679
Approach	7	0	0	7
Traffic Barricade	3	1	0	4
Sign Post	19	4	4	27
Traffic Signal Standard	5	5	3	13
Street Light Standard	2	1	10	13
Telephone/Power Pole	7	3	6	16
Guard Rail	27	2	5	34
Bridge Structure/Abutment	24	1	5	30
Tree/Bush	6	1	6	13
Parking Meter	0	0	1	1
Building/Wall	0	1	5	6
Curbing	13	5	15	33
Culvert/Drainage Structure	2	0	0	2
Snow Bank/Drift	30	2	3	35
Rock Face	13	1	2	16
Delineator Posts	1	0	0	1
Fire Hydrants/Utility box	1	1	1	3
Median Barrier/Gore	19	4	1	24
Gate/Movable Barrier	3	2	1	6
Impact Attenuator	26	0	1	27
Subtotal Part 1	806	91	93	990

Vehicle Involvement
by Sequence of Events, Collision With and Category
2001

Part 2

Event or Collision With	Category			Total
	Rural	Suburban	Urban	
Vehicle	1547	544	1881	3972
Railroad Train	7	0	1	8
Bicyclist	4	2	13	19
Motorcycle	5	2	6	13
Animal	2489	115	48	2652
Pedestrian	12	3	13	28
Farm Machinery	8	0	1	9
Construction Machinery*	5	4	1	10
Snowmobile	3	0	1	4
Off-Road Vehicle	1	0	2	3
Ran Off Road	343	16	14	373
Overturned	61	2	2	65
Fire/Explosion	64	5	1	70
Skidding/Sliding	32	4	4	40
Jack-Knifing/Trailer Swing	8	0	1	9
Submersion/Immersion	1	0	1	2
Load Spill	47	6	2	55
Not Applicable	19	4	6	29
Subtotal Part 2	4656	707	1998	7361
Subtotal Part 1	806	91	93	990
Total	5462	798	2091	8351

*Based on a review of the Traffic Collision Reports this sequence of events includes maintenance equipment.

Contributing Factors*
By Driver Action and Category
2001

Driver Action	Category			Total
	Rural	Suburban	Urban	
Driving Properly	2238	312	922	3472
Following Too Closely	41	28	111	180
Turning Improperly	42	20	52	114
Exceeding Speed Limit	22	3	9	34
Driving Too Fast For Conditions	169	36	55	260
Unsafe Operating Speed (Too Fast or Too Slow)	20	1	11	32
Passing Improperly	37	8	7	52
Changing Lanes Improperly	23	7	35	65
Failed To Yield Right Of Way	63	28	131	222
Disobeyed Traffic Control Device/Officer	17	7	60	84
Driving Wrong Way on Roadway	6	2	3	11
Passing A Vehicle At Pedestrian Crosswalk	0	0	2	2
Backing Unsafely	11	6	30	47
Parking Improperly	1	0	4	5
Careless Driving	45	19	34	98
Lost Control/Drive Off Roadway	185	18	26	229
Driverless Vehicle Ran Out Of Control	1	0	1	2
Leave Stop Sign Before Safe To Do So	44	11	36	91
Failed To Signal	6	0	1	7
Taking Avoiding Action	49	9	28	86
Driver Inexperience	79	10	56	145
Pedestrian Error/Confusion	3	2	4	9
Total	3102	527	1618	5247

* Note: There is a maximum of three contributing factors recorded on the Traffic Collision Report for each vehicle involved in a collision. The data presented in this table represents the total number of at-fault 'driver action' factors reported. Due to the number of blank/not applicable entries reported in this data the totals do not correlate to the number of vehicles involved.

Contributing Factors*
By Human Condition and Category
2001

Human Condition	Category			Total
	Rural	Suburban	Urban	
Apparently Normal	2645	400	1254	4299
Loss Of Consciousness/Blackout Prior To Accident	10	4	3	17
Extreme Fatigue/Fell Asleep	77	11	5	93
Defective Eyesight	1	1	2	4
Defective Hearing	1	0	1	2
Medical Disability	1	5	1	7
Physical Disability	1	1	2	4
Mental Disability	2	1	0	3
Mental Confusion/Inability To Remember	7	0	1	8
Sudden Illness	3	1	1	5
Ability Impaired by Alcohol	52	5	14	71
Ability Impaired by Drugs	4	1	0	5
Had Been Drinking/ Suspected Alcohol Use	40	7	8	55
Distraction/Inattention	104	34	164	302
Total	2948	471	1456	4875

* Note: There is a maximum of three contributing factors recorded on the Traffic Collision Report for each vehicle involved in a collision. The data presented in this table represents the total number of at-fault 'human condition' factors reported. Due to the number of blank/not applicable entries reported in this data the totals do not correlate to the number of vehicles involved.

Contributing Factors*
By Vehicle Condition and Category
2001

Vehicle Condition	Category			Total
	Rural	Suburban	Urban	
No Apparent Defect	1676	354	1254	3284
Defective Brakes	5	1	6	12
Defective Headlights	0	0	1	1
Defective Brakelights	1	1	0	2
Defective Lighting (Unspecified)	6	0	0	6
Defective Engine Controls/Drive Train	2	1	2	5
Defective Suspension/Wheels	8	0	1	9
Defective Tires	29	1	1	31
Defective Tow Hitch/Yoke	5	1	2	8
Defective Exhaust System	1	0	0	1
Hood/Tailgate/Door/Covering Opened	6	0	1	7
Vehicle Modifications	1	0	0	1
Fire	46	4	1	51
Overloaded/Oversized	2	0	0	2
Load Shifted/Spilled	13	1	0	14
Jack-knifing/Trailer Swing	7	1	0	8
Hydroplaning of Tires	1	0	0	1
Total	1809	365	1269	3443

* Note: There is a maximum of three contributing factors recorded on the Traffic Collision Report for each vehicle involved in a collision. The data presented in this table represents the total number of at-fault 'vehicle condition' factors reported. Due to the number of blank/not applicable entries reported in this data the totals do not correlate to the number of vehicles involved.

Contributing Factors*
By Environmental Condition and Category
2001

Environmental Condition	Category			Total
	Rural	Suburban	Urban	
Animal Action - Wild	2426	118	44	2588
Animal Action - Domestic	77	1	3	81
Slippery Road Surface	555	83	100	738
Snow Drift	53	6	1	60
Obstruction/Debris On Roadway	36	1	2	39
View Obstructed/Limited	57	8	22	87
Glare/Reflection	16	2	9	27
Construction Zone	15	1	8	24
Defective Driving Surface	60	2	3	65
Shoulders Defective	8	2	0	10
Lane Markings Inadequate	0	0	1	1
Weather	119	5	12	136
Pedestrian Corridor in Use	0	0	5	5
Uninvolved Vehicle	17	1	11	29
Uninvolved Pedestrian	1	1	0	2
Presence Of Prior Accident	8	0	2	10
Total	3448	231	223	3902

* Note: There is a maximum of three contributing factors recorded on the Traffic Colliaion Report for each vehicle involved in a collision. The data presented in this table represents the total number of at-fault 'environmental condition' factors reported. Due to the number of blank/not applicable entries reported in this data the totals do not correlate to the number of vehicles involved.

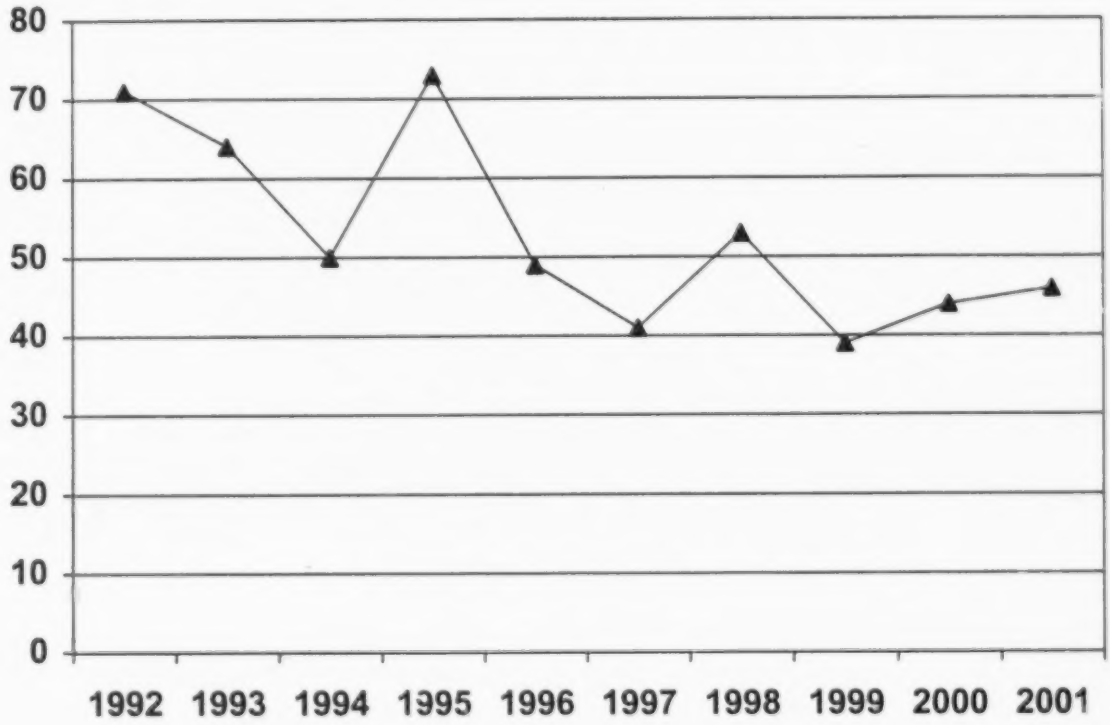
Vehicle Involvement
by Traffic Control/Advisory and Category
2001

Control/Advisory	Category			Total
	Rural	Suburban	Urban	
Traffic Signal/Control Device	78	127	520	725
Stop	155	52	201	408
Right Turn On Red	0	0	3	3
Left Turn On Red	0	2	4	6
Yield	44	19	37	100
Officer/Flagman/School Guard	15	4	2	21
Merge	12	4	5	21
4-Way Stop	0	0	1	1
Turn Controls	0	0	1	1
Flashing Signal Light	4	1	1	6
Overhead Signs	1	0	1	2
R.R. Gates	0	1	2	3
R.R. Auto Controls	2	0	0	2
R.R. Crossing	6	0	2	8
Warning Sign	10	0	0	10
Pedestrian Crosswalk	0	2	43	45
Pedestrian Corridor	0	0	4	4
School Crossing	0	0	1	1
Flashing School Signals	0	4	0	4
Not Applicable	5133	581	1262	6976
Unknown/Other	2	1	1	4
Total	5462	798	2091	8351

Section 2

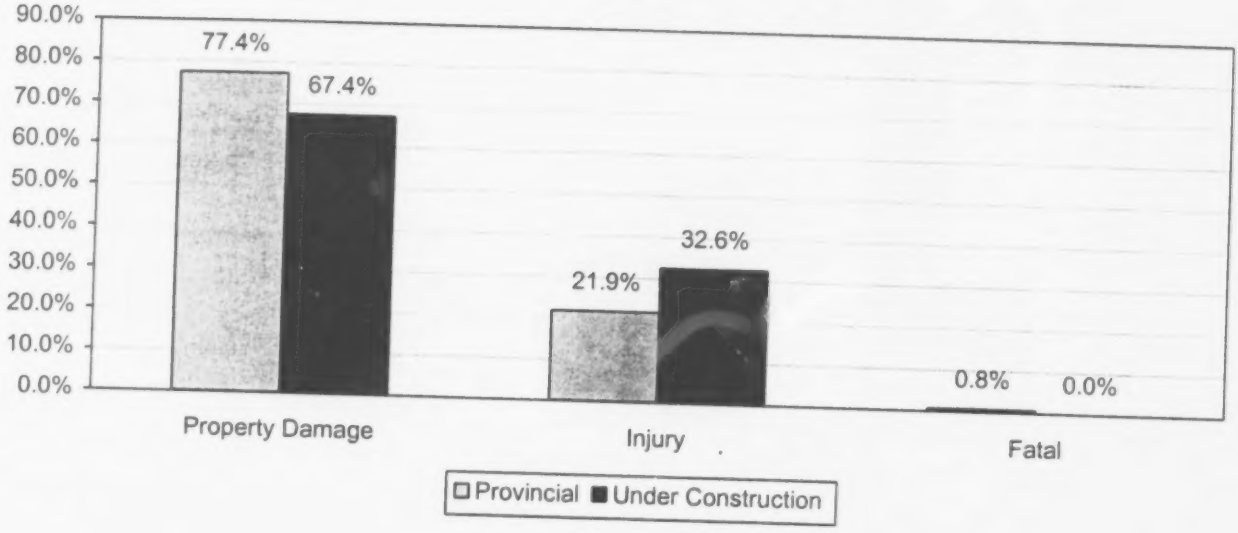
Comparison of Construction Sites with Non-Construction Sites

Provincial Highway Collisions In Construction/Repair Areas

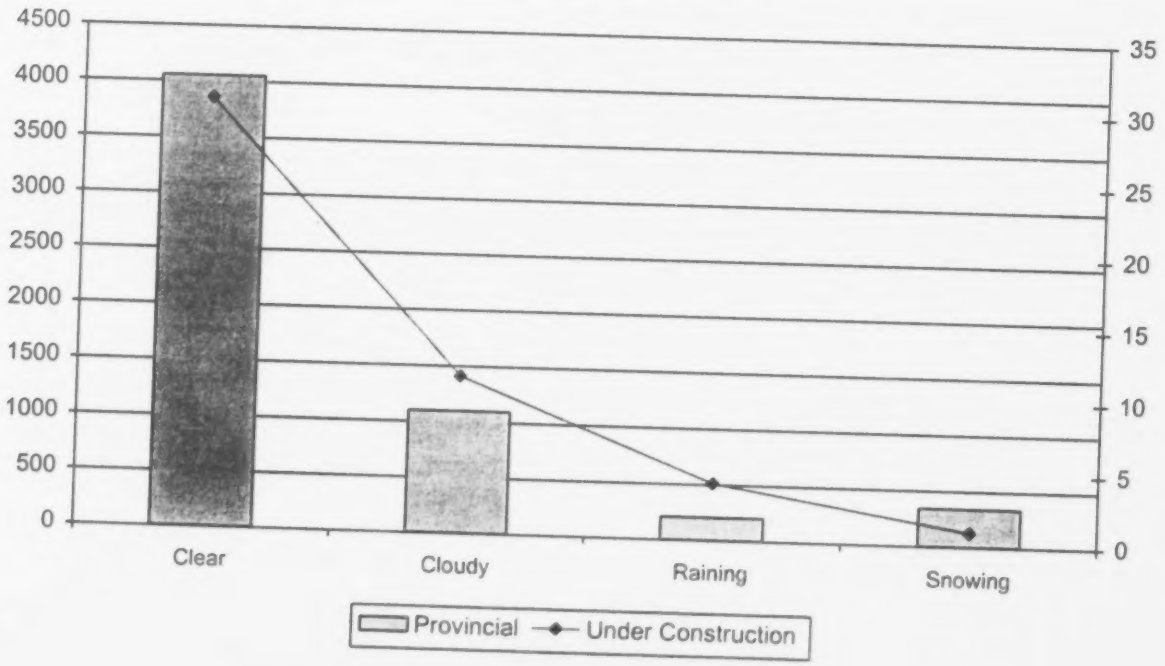


This section compares Provincial Highway construction-related collisions with the total Provincial Highway Collisions. Construction-related collisions are defined as those collisions that occurred on a roadway where the road condition was described as "under repair" or "under construction". In 2001, there were 46 such construction-related collisions, which compares with 44 in 2000.

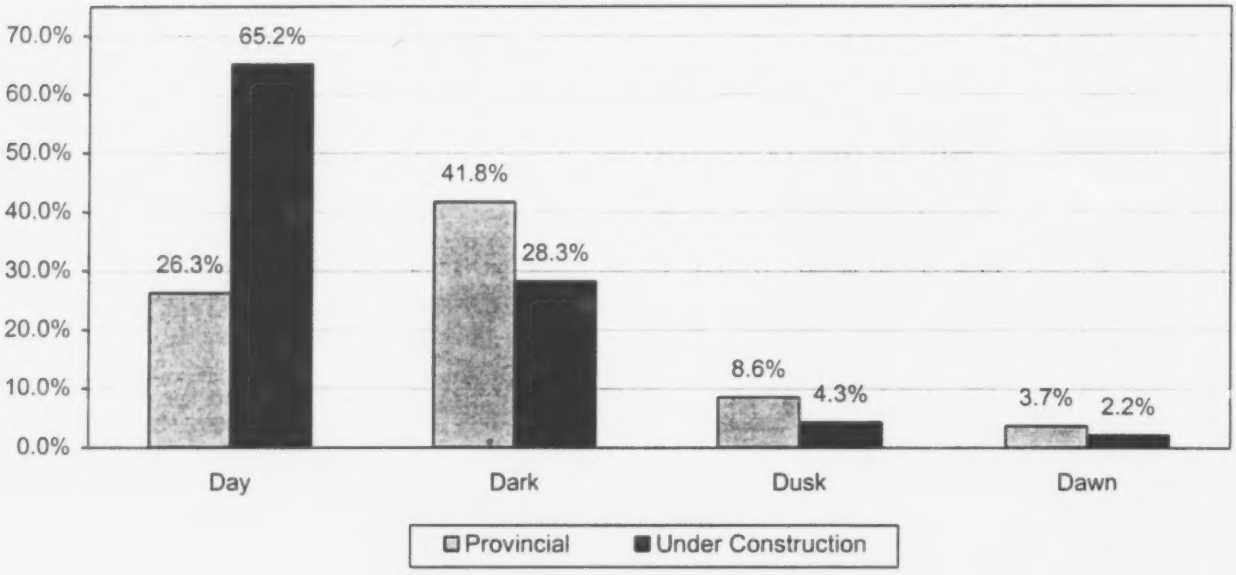
Comparison of Highway Collisions
by Severity
2001



Comparison of Highway Collisions
by Weather Condition
2001



Comparison of Highway Collisions
By Light Condition
2001



Comparison of Highway Collisions
by Traffic Control/Advisory
2001

Traffic Control	% in Province	% in Construction/Repair Areas
Traffic Signal/Control Device	68.1	4.3
Stop	4.9	4.3
Merge	0.3	15.2

Comparison of Highway Collisions by Site Type 2001

Site Type	% in Province	% in Construction/Repair Areas
Not Applicable/Other	14.8	15.2
Intersection	22.7	15.2
Between Intersections	56.9	69.6

Comparison of Highway Collisions by First Collision or Event 2001

Collision With or Event	% in Province	% in Construction/Repair Areas
Ditch/Embankment/Earth Slope	8.1	8.3
Rock Face	1.4	4.2
Median Barrier/Gore	0.3	2.1
Impact Attenuator	0.3	6.3
Vehicle	47.6	47.9
Animal	31.8	14.6
Pedestrian	0.3	2.1
Construction Machinery	0.1	4.2
Ran Off Road	4.5	4.2
Overturned	0.8	2.1
Load Spill	0.7	4.2

Comparison of Highway Collisions by Contributing Factors* 2001

Contributing Factor	Provincial		Construction/Repair Areas	
	No. of Collisions	Provincial %	No. of Collisions	Construction/ Repair Areas %
Driver Action				
Driving Properly	3472	19.9	23	17.2
Following Too Closely	180	1.0	3	2.2
Exceeding Speed Limit	34	0.2	3	2.2
Driving too Fast for Conditions	260	1.5	3	2.2
Changing Lanes Improperly	65	0.4	1	0.7
Failed to Yield right of Way	222	1.3	2	1.5
Lost control/Drive Off Roadway	229	1.3	1	0.7
Leave Stop Sign Before Safe To Do So	91	0.5	1	0.7
Human Condition				
Apparently Normal	4299	24.6	31	23.1
Distraction/Inattention	302	1.7	5	3.7
Vehicle Condition				
No Apparent Defect	3284	18.8	27	20.1
Defective Suspension/Wheels	9	0.1	1	0.7
Environmental Condition				
Animal Action -Wild	2588	14.8	7	5.2
Slippery Road Surface	738	4.2	2	1.5
Obstruction/Debris on Roadway	39	0.2	3	2.2
View Obstructed/Limited	87	0.5	1	0.7
Construction Zone	24	0.1	17	12.7
Defective Driving Surface	65	0.4	3	2.2

*Note: There is a maximum of three contributing factors recorded on the Traffic Collision Report for each vehicle involved in a collision. The data presented in this table is a compilation of total at-fault 'contributing factors' related to collisions at construction sites.

Section 3

Comparison of Intersection Collision Data

1992 - 2001

The 12 intersection classifications used in the "2001 Traffic Collision Statistics Report" have been broken down into rural, suburban and urban categories in this report. The Rate-Quality Control Technique has been used. In this method, a critical collision rate is calculated for each intersection based on the average for all locations in the specific group. The difference between the actual collision rate and the critical collision rate is referred to as the criticality.

i.e. criticality = actual collision rate - critical collision rate.

A positive criticality may be as a result of unfavourable site characteristics that may warrant further study.

In the rate-quality control equation, deciding which value of the probability constant (k) will be used chooses the desired level of confidence. As the chosen value of the confidence level increases in size (i.e. 90%, 95%, 99.5%) the value of the critical collision rate also increases. As the critical collision rate becomes higher, fewer locations will exceed the critical collision rate; confidence is then higher that the location is truly abnormal for its group.

In the analysis of the intersection data a maximum of 10 years of data have been included. The critical collision rates for each intersection have been omitted to allow for a clearer presentation of the data. For those intersections where n/a is shown, for a given year, the results have been adjusted to reflect the unavailable data.

The speed zone grouping (urban, suburban or rural) is based on the legal speed limit of the roadway on the free flowing legs of the intersection. In the case of a signalized intersection, the 'main' street speed limit will govern.

Intersection Classification: National Highway System - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
75/201	3280	1	1	4	6	1	2	5	2	3	2	2.26	2.34	1.95	1.15
10/16N/16A	4060	2	1	2	0	3	2	6	1	3	3	1.55	2.02	1.57	0.81
10/16S	4580	4	2	1	3	4	1	0	3	3	1	1.32	0.96	1.40	0.65
100/427	10720	7	3	4	3	4	4	2	3	0	11	1.05	1.02	1.19	0.54
75/100	18250	7	2	4	9	6	6	3	12	5	5	0.89	0.93	1.10	0.49
1/12	11845	1	1	3	12	10	4	3	3	3	7	1.09	0.93	1.00	0.36
1/41/542	3285	0	0	0	1	0	0	0	2	1	1	0.42	0.67	1.11	0.31
16/668RUS	6451	0	0	0	1	3	1	0	2	4	1	0.51	0.68	0.99	0.29
1/100/101E	17275	4	1	4	2	2	8	1	5	7	5	0.62	0.82	0.90	0.28
1/308	3660	0	2	0	2	1	1	0	1	2	1	0.75	0.75	1.00	0.22
1/100/101W	36010	16	20	17	14	5	12	6	13	6	11	0.91	0.73	0.76	0.18
1/83W	3850	0	0	0	1	0	0	0	0	1	3	0.36	0.57	0.95	0.18
75/246	4160	1	1	1	0	0	1	0	2	1	1	0.53	0.66	0.88	0.12
100/241	17805	7	7	2	6	3	3	0	3	8	3	0.65	0.52	0.72	0.10
1/256	3035	4	2	0	2	1	0	0	2	1	0	1.08	0.54	0.90	0.09
100/330	9850	2	2	2	2	0	3	2	1	4	3	0.58	0.72	0.74	0.08
1/5	7225	0	8	0	2	1	0	2	1	3	2	0.72	0.61	0.76	0.07
1/83E	4480	2	1	1	1	1	2	2	1	1	2	0.86	0.98	0.82	0.07
1/241	9780	0	0	2	3	0	0	0	1	6	0	0.34	0.39	0.65	-0.01
1/26	11190	7	3	3	3	3	3	2	2	2	3	0.76	0.59	0.57	-0.08
1/44	4120	0	0	2	0	0	1	0	1	2	0	0.40	0.53	0.66	-0.10
1/34	6270	2	1	1	2	1	1	2	2	2	0	0.61	0.61	0.58	-0.12
1/302	4640	1	0	1	2	0	0	1	0	2	1	0.47	0.47	0.59	-0.15
1/207E	7548	0	1	1	0	3	2	1	1	2	1	0.44	0.51	0.48	-0.20
16/83N	3105	1	1	0	0	1	0	1	0	1	1	0.53	0.53	0.59	-0.22
1/351E	5440	0	0	0	0	0	0	0	1	0	2	0.15	0.30	0.50	-0.22
1/13/430	11035	2	2	1	1	3	0	0	1	2	2	0.35	0.25	0.41	-0.24
75/205	5820	3	0	4	2	1	2	1	0	3	0	0.75	0.56	0.47	-0.25
1/248	13203	1	4	4	4	3	3	0	1	0	4	0.50	0.33	0.35	-0.29
75/305	5010	0	0	0	2	0	2	0	1	1	0	0.33	0.44	0.36	-0.37
Average Collision Rate for Analysed Intersections =												0.45	0.45	0.50	

Intersections Presented 30
Total Intersections Analysed 59
No. of Intersections This Classification 103
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Signalized Intersections - Suburban																
Intersection I.D.	Volume	Date Signalised	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality onf = 99.5%
			92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
12/PARKSTE	23991	6/90	17	9	15	16	14	15	12	18	16	15	1.68	1.74	1.87	1.05
1/16/305	10275	9/79	2	4	10	7	9	7	4	5	10	3	1.63	1.55	1.60	0.66
100/WAVER	14558	9/91	4	9	2	5	3	10	2	9	5	8	1.07	1.28	1.38	0.50
3/100	14175	5/73	8	4	8	6	10	9	1	6	5	9	1.28	1.16	1.29	0.40
101/ASSDWN*	12890	03/80	1	2	1	1	2	2	2	6	9	2	0.60	0.89	1.20	0.30
100/STMARY*	21845	12/73	3	1	3	7	7	10	10	5	11	6	0.79	1.05	0.92	0.09
14/32/428	8400	6/95	{1}	(1)	{4}	2	3	4	1	4	4	2	0.93	0.98	1.09	0.03
1/207W	14951	9/93	{9}	{8}	8	7	3	6	1	4	4	7	0.92	0.81	0.92	0.00
9/410	10115	9/91	3	0	1	5	4	5	5	5	4	1	0.89	1.08	0.90	-0.04
59/101S	32546	6/97	n/a	n/a	n/a	n/a	n/a	6	1	6	11	10	n/a	0.57	0.76	-0.11
10/459	18753	2/90	n/a	n/a	1	5	6	4	3	3	5	4	0.57	0.56	0.58	-0.29
59/101N	24454	6/97	n/a	n/a	n/a	n/a	n/a	9	1	6	1	9	n/a	0.58	0.60	-0.31
9/44	12235	6/74	7	0	4	3	5	5	4	2	2	4	0.81	0.76	0.60	-0.31
15/101*	23687	11/96	{0}	{0}	{2}	{0}	{2}	4	12	3	8	3	0.69	0.69	0.54	-0.37
1/RACEWAY*	15500	6/78	0	0	2	0	0	0	1	2	2	4	0.19	0.32	0.47	-0.40
221/636WPG	14210	10/74	7	12	7	5	4	4	4	1	3	3	0.96	0.58	0.45	-0.44
4/9/9AN	7255	5/95	{4}	{8}	{5}	2	3	1	2	0	2	3	0.70	0.60	0.63	-0.46
100/STANNE	15890	6/88	2	2	3	1	3	2	1	2	2	2	0.34	0.31	0.34	-0.53
101/409	16025	11/98	{5}	{4}	{3}	{0}	{2}	{4}	{1}	1	4	5	n/a	n/a	0.57	-0.53
1A/457	17605	5/90	0	4	2	3	0	1	3	2	2	2	0.30	0.31	0.31	-0.54
7/67	10155	2/97	{2}	{0}	{2}	{6}	{8}	2	4	2	2	2	n/a	0.65	0.54	-0.55
1/10W	9290	5/91	1	4	6	3	3	2	2	1	3	0	0.74	0.47	0.39	-0.56
1/BLUMBERG*	19793	06/99	n/a	n/a	n/a	{4}	{2}	{1}	{1}	3	3	2	n/a	n/a	0.37	-0.68
101/425	11830	8/78	3	2	2	1	4	5	1	0	2	1	0.49	0.42	0.23	-0.68
9/RIVERWPG	14448	9/83	3	4	4	3	1	4	2	2	1	0	0.46	0.34	0.19	-0.69
1/ODEON*	15500	10/75	0	0	0	0	0	0	0	0	1	2	0.05	0.11	0.18	-0.70
1/334E	17280	11/95	{0}	{2}	{2}	{1}	2	3	3	4	0	0	0.32	0.32	0.21	-0.73
6/391/BURN	8700	05/73	n/a	0	0	0	0	1	0	0	1	1	0.10	0.19	0.21	-0.78
1/248	13203	10/98	{11}	{4}	{4}	{4}	{3}	{3}	{0}	1	0	4	n/a	n/a	0.35	-0.81
204/HODDINOTT	9889	12/96	n/a	n/a	n/a	{4}	{5}	0	2	2	1	0	n/a	0.28	0.28	-0.82
Average Collision Rate for Analysed Intersections =													0.66	0.62	0.60	

Intersections Presented 30
Total Intersections Analysed 38
No. of Intersections This Classification 38
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

*Notes
1/RACEWAY in the spring of 1999 the lights at PTH 1 and Assiniboia Downs were moved west to Raceway Road.
1/BLUMBERG, 1/ODEON & 101/ASSDWN These signals are on only during events; otherwise, they flash amber for through traffic.
100/STMARY Signage improvements were done at this intersection in the fall of 2000.
** Analysis is based only on year and subsequent years that an intersection has been signalized; other years {} are for information only.
***3 years or less depending on signalization date.

Intersection Classification: Signalized Intersections - Urban

Intersection I.D.	Volume	Date Signalised	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
			92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
12/52	20900	04/75	12	15	19	18	12	6	15	8	19	18	1.86	1.73	1.97	0.99
52/REIMSTE	14176	02/74	7	6	2	13	12	6	11	10	11	8	1.66	1.78	1.87	0.84
10/610BRN	38414	05/80	15	4	19	20	18	17	12	23	25	21	1.24	1.40	1.64	0.74
1A/10	44534	03/78	24	19	29	31	28	22	29	27	28	19	1.57	1.54	1.52	0.63
5A/20AS*	15324	06/85	10	4	8	6	8	5	7	11	11	5	1.34	1.39	1.61	0.59
5A/WHITDAU*	7100	10/95	{5}	{4}	{0}	{6}	4	1	5	3	4	7	1.54	1.54	1.80	0.50
10/PARKBRN	32972	11/78	7	15	12	10	7	14	9	22	19	8	1.02	1.20	1.36	0.44
1A/610BRN	28098	05/80	15	7	11	12	11	8	13	16	15	10	1.15	1.21	1.33	0.40
1A/12WPLP	19567	12/73	2	7	3	0	4	2	4	13	6	9	0.70	0.95	1.31	0.32
1A/34BRN	22020	02/78	7	4	9	10	5	11	12	10	13	8	1.11	1.34	1.29	0.32
10/QUEEBRN	25287	08/89	7	7	8	9	10	12	6	12	9	12	1.00	1.11	1.19	0.24
9A/320	18239	10/77	4	2	6	5	3	7	4	5	12	5	0.80	0.99	1.10	0.11
1A/6BRN	17364	08/80	8	2	4	4	9	9	7	3	12	6	1.01	1.17	1.10	0.11
5A/20AN*	12119	06/85	7	3	4	5	0	3	3	1	10	4	0.90	0.95	1.13	0.07
10/10ASSR	10778	11/97	{2}	{0}	{1}	{2}	{6}	{4}	3	7	4	5	n/a	n/a	1.36	0.06
12/LOEWSTE	21400	08/88	11	9	8	9	13	3	8	13	8	3	1.09	0.90	1.02	0.05
10/PRINBRN	26204	12/68	6	14	7	6	13	10	15	8	10	10	1.04	1.11	0.98	0.03
1A/ROSSBRN	14161	02/80	2	0	6	5	3	2	0	1	4	11	0.66	0.70	1.03	0.00
32/ROBWIN	11049	07/90	6	5	7	5	5	3	2	4	3	6	1.14	0.89	1.07	0.00
10A/83SR	11563	08/94	{3}	{3}	{5}	3	4	1	6	7	5	2	0.95	1.00	1.11	-0.03
52/FRIESTE	13772	02/78	4	7	4	3	2	2	2	7	2	6	0.78	0.76	0.99	-0.04
10A/6SR	11669	05/74	2	4	4	2	2	2	1	4	4	5	0.70	0.75	1.02	-0.05
10/283/285	12088	10/75	2	7	7	3	6	4	4	3	6	4	1.04	0.95	0.98	-0.07
610/9STBRN	17222	07/83	n/a	n/a	0	4	2	6	2	5	6	5	0.60	0.76	0.85	-0.19
1A/26BRN	26074	02/76	9	10	4	12	5	12	11	5	7	9	0.88	0.92	0.74	-0.21
1A/8BRN	20236	07/91	0	0	3	4	0	3	4	6	6	5	0.42	0.65	0.77	-0.21
1A/8WPLP	19493	06/80	5	0	2	1	4	2	4	4	6	6	0.48	0.62	0.75	-0.23
10/ROSSBRN	23123	05/78	6	6	9	8	5	7	6	6	4	8	0.77	0.73	0.71	-0.25
10A/5SR	9828	10/74	2	2	3	3	1	0	0	0	4	5	0.56	0.50	0.84	-0.26
610/610BRN	19113	07/83	6	0	2	4	4	2	6	4	6	5	0.56	0.66	0.72	-0.27
Average Collision Rate for Analysed Intersections =													0.71	0.69	0.72	

Intersections Presented	30
Total Intersections Analysed	81
No. of Intersections This Classification	81

Data Sorted at 99.5% Confidence Level

Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

*Notes

5A/20AS,5A/MEMDAU, 5A/20AN, 5A/WHITDAU, 5A/1NWDAU, & 20A/3AVN - 92 to 94 reported collision histories are not guaranteed to be accurate due to the unavailability of records for verification.

10/10AWFF, 10/1AVFF & 10/4AVFF - These intersections were being coded incorrectly. This was identified in the summer of 2000 and as a result the reported collision histories for 92 to 94 may not be accurate.

10/ABERBRN in 1999 Aberdeen in Brandon was extended to PTH # 10

** Analysis is based only on year and subsequent years that an intersection has been signalized; other years {} are for information only.

***3 years or less depending on signalization date

Intersection Classification: Expressway - Expressway - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
1/100/101E	17275	4	1	4	2	2	7	1	5	7	6	0.62	0.82	0.95	0.05
1/100/101W	36010	16	20	17	14	5	12	6	13	6	11	0.91	0.73	0.76	-0.05
1/12	11845	1	1	3	12	9	4	3	2	1	7	0.99	0.79	0.77	-0.20
44/59	9630	4	4	7	2	2	3	6	3	3	2	1.02	0.97	0.76	-0.25
12/44W	3795	2	1	1	0	1	1	0	2	2	0	0.72	0.72	0.96	-0.31
8/101	25850	3	5	6	4	4	8	4	2	7	5	0.51	0.55	0.49	-0.35
7/101	21770	4	2	8	11	18	7	6	2	6	2	0.83	0.58	0.42	-0.45
59/101*	34737	4	6	5	3	6	2	2	7	5	1	0.32	0.27	0.34	-0.47
59/100	16620	0	7	4	3	4	3	0	5	1	2	0.48	0.36	0.44	-0.47
12/44E	2895	0	0	1	0	0	0	0	0	2	0	0.28	0.38	0.63	-0.75
29/75	3080	0	0	1	1	2	0	0	0	0	0	0.36	0.00	0.00	-1.35
Average Collision Rate for Analysed Intersections =												0.64	0.56	0.59	

Intersections Presented 11
Total Intersections Analysed 11
No. of Intersections This Classification 11
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

* Notes

59/101 The north & south intersections are signalized, this one is not.

Intersection Classification: Expressway - Primary Arterial - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
75/100	18250	7	2	4	9	6	6	3	12	5	5	0.89	0.93	1.10	0.24
14/75	4045	2	1	1	3	4	1	4	2	1	3	1.49	1.49	1.35	0.14
1/83W	3850	0	0	0	1	0	0	0	0	1	3	0.36	0.57	0.95	-0.28
1/83E	4480	2	1	1	1	1	2	2	1	1	2	0.86	0.98	0.82	-0.36
2/100	10430	0	1	1	1	1	1	2	1	2	2	0.32	0.42	0.44	-0.52
8/230	7810	2	1	4	0	1	1	2	1	2	0	0.49	0.42	0.35	-0.67
4/59	5135	2	2	2	1	0	1	1	1	0	1	0.59	0.43	0.36	-0.78
8/27	11080	2	1	0	1	2	1	0	0	0	0	0.17	0.05	0.00	-0.95
16/34/675E	3875	2	0	0	0	2	0	0	1	0	0	0.35	0.14	0.24	-0.99
6/67	5236	0	2	1	0	0	1	0	0	0	0	0.21	0.10	0.00	-1.13
Average Collision Rate for Analysed Intersections =												0.57	0.55	0.56	

Intersections Presented 10
Total Intersections Analysed 10
No. of Intersections This Classification 10
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication

Intersection Classification: Expressway - Primary Arterial - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
16/34/675E	n/a	n/a	0	0	0	0	0	2	0	0	1	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												n/a	n/a	n/a	

Intersections Presented 1
Total Intersections Analysed 1
No. of Intersections This Classification 1
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Expressway - Secondary Arterial - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
75/201	3280	1	1	4	6	1	2	5	2	2	2	2.17	2.17	1.67	0.59
59/317	4260	3	1	3	1	1	1	0	2	4	1	1.09	1.03	1.50	0.50
12/59S	2365	0	0	1	0	1	0	0	1	1	1	0.58	0.70	1.16	-0.04
1/21	5020	0	0	0	0	0	0	0	0	0	5	0.27	0.55	0.91	-0.05
1/5	7225	0	8	0	2	1	0	2	1	3	2	0.72	0.61	0.76	-0.12
1/250E	5620	0	0	1	0	1	0	1	1	3	1	0.39	0.58	0.81	-0.12
1/13/430	11035	2	2	1	1	3	0	0	1	2	2	0.35	0.25	0.41	-0.38
1/1AEPLP	9800	0	1	0	3	2	2	0	1	0	3	0.34	0.34	0.37	-0.45
1/206W	10300	2	4	0	1	2	3	2	1	3	0	0.48	0.48	0.35	-0.45
1/1AWPLP	10690	3	0	1	3	1	2	2	0	0	4	0.41	0.41	0.34	-0.46
1/1AWBRN	6205	0	2	1	0	0	2	1	0	1	2	0.40	0.53	0.44	-0.47
1/44	4120	0	0	2	0	0	1	0	1	1	0	0.33	0.40	0.44	-0.57
44/206	4760	0	1	1	2	0	1	0	2	0	0	0.40	0.35	0.38	-0.59
1/250W/601	5095	0	0	0	0	1	0	0	0	1	1	0.16	0.22	0.36	-0.60
1/34	6270	2	1	1	2	1	1	2	1	1	0	0.52	0.44	0.29	-0.62
1/240	10275	1	1	1	0	1	0	0	0	1	1	0.16	0.11	0.18	-0.63
1/340	5920	0	0	0	0	0	0	0	0	0	1	0.05	0.09	0.15	-0.77
1/11/610	5192	4	0	0	1	0	1	2	1	0	0	0.47	0.42	0.18	-0.78
52/59	5065	0	3	0	1	3	2	0	0	0	1	0.54	0.32	0.18	-0.78
1/257	4425	0	2	0	0	0	1	0	1	0	0	0.25	0.25	0.21	-0.79
10/25	3880	1	0	0	0	0	0	0	1	0	0	0.14	0.14	0.24	-0.79
16/50	2680	0	0	2	0	2	0	0	1	0	0	0.51	0.20	0.34	-0.81
44/214	2680	0	0	1	0	0	0	0	0	0	1	0.20	0.20	0.34	-0.81
9/230	6350	0	0	0	1	0	1	0	0	0	0	0.09	0.09	0.00	-0.90
12/304/500	2285	0	0	0	0	1	0	0	0	0	0	0.12	0.00	0.00	-1.21
16/227	n/a	0	1	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.45	0.43	0.48	

Intersections Presented 26
Total Intersections Analysed 26
No. of Intersections This Classification 26
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Expressway - Secondary Arterial - Suburban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
9/101	30720	6	2	3	12	3	7	6	3	4	4	0.45	0.43	0.33	-0.25
9/9AS	17630	4	2	0	1	0	0	1	4	4	0	0.25	0.28	0.41	-0.25
9/67	10100	1	1	0	0	1	1	0	1	0	0	0.14	0.11	0.09	-0.71
Average Collision Rate for Analysed Intersections =												0.28	0.27	0.28	

Intersections Presented 3
Total Intersections Analysed 3
No. of Intersections This Classification 3
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Expressway - Secondary Arterial - Urban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
23/75S	7230	1	0	1	1	0	1	2	1	2	3	0.45	0.68	0.76	-1.30
15/206	9320	1	3	0	2	5	1	2	1	1	2	0.53	0.41	0.39	-1.49
Average Collision Rate for Analysed Intersections =												0.49	0.55	0.57	

Intersections Presented 2
Total Intersections Analysed 2
No. of Intersections This Classification 2
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Expressway - Collector - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
59/509	4500	1	1	3	6	2	4	3	2	2	3	1.64	1.70	1.42	0.74
12/501	1870	1	1	1	1	0	2	2	3	0	0	1.61	2.05	1.47	0.62
100/427	10720	7	3	4	3	4	4	2	3	0	11	1.05	1.02	1.19	0.60
59/311*	6720	1	3	3	3	2	3	2	1	7	0	1.02	1.06	1.09	0.45
1/41/542	3285	0	0	0	1	0	0	0	2	1	1	0.42	0.67	1.11	0.38
59/405	4500	2	1	0	1	2	1	2	2	2	1	0.85	0.97	1.01	0.33
75/246	4160	1	1	1	0	0	1	0	2	1	1	0.53	0.66	0.88	0.18
100/241	17805	7	7	2	5	3	3	0	3	8	3	0.63	0.52	0.72	0.16
1/256	3035	4	2	0	2	1	0	0	2	1	0	1.08	0.54	0.90	0.16
100/330	9850	2	2	2	2	0	3	2	1	4	3	0.58	0.72	0.74	0.14
101/221	9850	5	0	0	2	3	4	0	2	2	3	0.58	0.61	0.65	0.05
1/308	3660	0	2	0	2	1	1	0	1	1	1	0.67	0.60	0.75	0.04
1/241	9780	0	0	2	3	0	0	0	0	6	0	0.31	0.34	0.56	-0.04
1/302	4640	1	0	1	2	0	0	1	0	2	1	0.47	0.47	0.59	-0.09
1/26	11190	7	3	3	3	2	3	2	1	2	3	0.71	0.54	0.49	-0.10
1/207E	7548	0	1	1	0	3	2	1	1	2	1	0.44	0.51	0.48	-0.14
7/321/665	10259	0	5	0	3	0	1	0	4	1	0	0.37	0.32	0.45	-0.15
59/212	5635	0	0	0	0	1	0	0	1	0	2	0.19	0.29	0.49	-0.17
12/311S	13913	1	1	1	1	2	1	0	3	2	1	0.26	0.28	0.39	-0.18
75/205	5820	3	0	4	2	1	2	1	0	3	0	0.75	0.56	0.47	-0.18
59/305	3450	1	1	0	1	0	0	0	1	1	0	0.40	0.32	0.53	-0.19
59/213	15230	3	0	1	4	1	0	2	1	1	4	0.31	0.29	0.36	-0.21
15/207	9580	2	3	0	3	3	3	1	1	0	3	0.54	0.46	0.38	-0.22
44/204E	3825	1	0	0	1	2	1	1	0	2	0	0.57	0.57	0.48	-0.23
59/210S	4810	1	3	2	0	0	0	1	1	1	0	0.51	0.34	0.38	-0.29
75/305	5010	0	0	0	2	0	2	0	1	1	0	0.33	0.44	0.36	-0.30
59/210N	5120	1	1	0	2	0	1	0	0	1	1	0.37	0.32	0.36	-0.31
1/351E	5440	0	0	0	0	0	0	0	0	0	2	0.10	0.20	0.34	-0.32
75/243	2045	0	0	0	0	0	0	0	0	0	1	0.13	0.27	0.45	-0.37
12/311N	14792	0	2	1	1	1	2	2	1	1	1	0.22	0.26	0.19	-0.38
Average Collision Rate for Analysed Intersections =												0.42	0.42	0.44	

Intersections Presented 30
Total Intersections Analysed 50
No. of Intersections This Classification 95
Data Sorted at 90 % Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Expressway - Collector - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
14/673WIN	9949	1	1	1	3	4	1	4	3	4	3	0.69	0.83	0.92	0.06
8/220	8820	3	2	3	4	4	1	2	2	2	1	0.75	0.50	0.52	-0.37
44/215/302	6460	0	1	5	0	2	1	0	0	3	1	0.55	0.42	0.57	-0.40
1/334W	14570	0	0	2	3	0	1	2	1	2	3	0.26	0.34	0.38	-0.41
230/410	3770	0	0	0	0	0	0	0	0	1	0	0.07	0.15	0.24	-0.89
16/675WGLA	3340	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.18
Average Collision Rate for Analysed Intersections =												0.39	0.37	0.44	

Intersections Presented 6
Total Intersections Analysed 6
No. of Intersections This Classification 6
Data Sorted at 99.5%Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Expressway - Collector - Urban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
44/204W	8907	1	0	2	2	1	4	2	1	0	0	0.40	0.43	0.10	-0.39
101/204N	16344	3	2	0	0	0	0	3	1	1	2	0.20	0.23	0.22	-0.22
44/238	n/a	0	0	0	1	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.30	0.33	0.16	

Intersections Presented 3
Total Intersections Analysed 2
No. of Intersections This Classification 3
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Primary Arterial - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
10/39	655	1	0	0	0	0	0	0	0	1	1	1.25	1.67	2.79	0.02
2/83	1315	0	0	0	1	1	0	1	1	1	1	1.25	1.67	2.08	-0.08
10/16S	4580	4	2	1	3	3	1	0	1	3	1	1.14	0.72	1.00	-0.53
8/67	5745	4	0	1	0	0	2	2	2	0	3	0.67	0.86	0.79	-0.65
5/10E	1885	3	1	2	1	1	0	1	2	0	0	1.60	0.87	0.97	-0.96
5/68	2515	0	0	0	0	0	0	1	0	0	2	0.33	0.65	0.73	-1.05
16/83N	3105	1	1	0	0	1	0	1	0	1	1	0.53	0.53	0.59	-1.09
6/39	580	0	1	0	0	0	0	0	1	0	0	0.94	0.94	1.57	-1.33
2/10N	4215	0	0	0	1	0	0	0	0	1	0	0.13	0.13	0.22	-1.34
6/60	605	0	0	0	0	0	1	0	0	1	0	0.91	1.81	1.51	-1.35
2/10S	2990	1	1	1	0	0	1	1	1	0	0	0.55	0.55	0.31	-1.39
5/10W	2755	1	1	2	1	1	0	1	1	0	0	0.80	0.40	0.33	-1.40
8/68/625	1735	1	0	1	1	1	2	1	1	0	0	1.26	1.26	0.53	-1.45
42/83W	1000	0	0	0	0	0	0	0	0	1	0	0.27	0.55	0.91	-1.46
23/59	2395	0	0	0	1	0	3	1	0	0	0	0.57	0.92	0.00	-1.80
16/83S	1430	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-2.10
10/60	670	0	0	0	1	0	0	0	0	0	0	0.41	0.00	0.00	-2.75
Average Collision Rate for Analysed Intersections =												0.74	0.80	0.84	

Intersections Presented 17
Total Intersections Analysed 17
No. of Intersections This Classification 17
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Primary Arterial - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
42/83E	1295	0	0	0	0	0	0	0	1	0	0	0.21	0.42	0.71	0.60
2/3	6140	7	6	1	4	5	6	2	4	5	3	1.92	1.78	1.79	0.16
12/15	3965	3	3	1	1	1	2	0	4	0	1	1.11	0.97	1.15	-0.66
5/16E	4911	0	0	0	0	0	2	1	1	2	2	0.45	0.89	0.93	-0.79
6/68S/417	2320	1	0	0	1	1	0	0	2	0	1	0.71	0.71	1.18	-0.93
5/16W	6336	1	2	1	0	1	2	3	2	0	2	0.61	0.78	0.58	-1.04
3/83N	1280	1	0	0	0	0	0	0	0	0	0	0.21	0.00	0.00	-2.55
Average Collision Rate for Analysed Intersections =												0.74	0.79	0.90	

Intersections Presented 7
Total Intersections Analysed 7
No. of Intersections This Classification 7
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Secondary Arterial - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
6/373	625	0	1	0	0	0	0	0	0	1	1	1.32	1.75	2.92	1.28
5/20/582	1520	0	0	1	0	1	0	0	3	1	0	1.08	1.44	2.40	1.15
10/77	910	0	0	0	2	0	0	0	0	1	1	1.20	1.20	2.01	0.56
10/16N/16A	4060	2	1	2	0	3	2	6	1	3	3	1.55	2.02	1.57	0.55
5/276	4564	3	1	3	1	3	0	0	2	3	2	1.08	0.84	1.40	0.40
3/23	3850	1	0	1	2	2	2	1	1	2	2	1.00	1.14	1.19	0.16
59/201	1360	1	1	0	0	1	0	1	0	2	0	1.21	1.21	1.34	0.05
10/10AEFF	2370	1	1	0	0	0	1	2	0	2	1	0.92	1.39	1.16	0.02
2/5	1560	0	0	1	0	1	2	1	1	0	1	1.23	1.76	1.17	-0.08
8/17	2830	0	0	1	0	1	1	0	1	0	2	0.58	0.77	0.97	-0.12
2/34	1680	1	0	1	0	2	0	1	0	2	0	1.14	0.98	1.09	-0.14
10/357	1690	1	1	0	0	1	0	1	1	1	0	0.97	0.97	1.08	-0.14
3/10	1710	1	1	0	0	1	0	2	0	2	0	1.12	1.28	1.07	-0.15
14/30/332	3035	1	1	1	2	2	0	2	1	0	2	1.08	0.90	0.90	-0.17
12/89/203	970	1	0	1	0	2	1	0	0	0	1	1.69	1.13	0.94	-0.48
10/10ANSR	3233	1	1	0	0	1	0	0	0	1	1	0.42	0.34	0.56	-0.50
6/227	3483	0	0	0	0	2	1	0	1	1	0	0.39	0.47	0.52	-0.52
12/59N	3650	1	1	0	1	2	0	1	0	0	2	0.60	0.45	0.50	-0.54
110/457	2430	n/a	n/a	n/a	n/a	1	1	1	2	0	0	1.07	0.90	0.75	-0.56
11/44N	1610	2	2	0	0	2	0	0	1	0	0	1.19	0.34	0.57	-0.67
5/50/361	1610	1	0	1	1	1	0	0	0	1	0	0.85	0.34	0.57	-0.67
2/18	1645	0	0	1	0	0	0	1	1	0	0	0.50	0.67	0.56	-0.68
16/45	2810	0	0	0	1	0	0	0	1	0	0	0.19	0.19	0.32	-0.77
6/325S	2990	0	0	2	0	0	0	0	0	0	1	0.27	0.18	0.31	-0.77
5/5AN	3000	0	0	0	0	0	1	0	0	1	0	0.18	0.37	0.30	-0.77
5/5AS	3912	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.03
16/50	3060	0	0	2	0	0	0	0	0	0	0	0.18	0.00	0.00	-1.07
83/257	2465	0	0	0	1	0	1	0	0	0	0	0.22	0.22	0.00	-1.12
10/45	2225	1	1	1	0	1	1	0	0	0	0	0.62	0.25	0.00	-1.15
280/391	1305	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.31
Average Collision Rate for Analysed Intersections =												0.73	0.71	0.71	

Intersections Presented 30
Total Intersections Analysed 37
No. of Intersections This Classification 42
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Secondary Arterial - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
16/21	2200	0	1	1	0	0	1	4	1	0	2	1.25	1.99	1.25	-0.41
2/240	2579	0	1	0	0	1	0	3	1	1	1	0 85	1.27	1.06	-0.51
9/27	12542	3	2	2	1	0	3	3	2	1	3	0.44	0.52	0.44	-0.60
8/616GIM	3316	0	0	0	0	0	0	1	0	0	1	0.17	0.33	0.28	-1.18
7/17	2610	1	0	1	1	1	0	0	1	0	0	0.52	0.21	0.35	-1.22
10/20	930	0	0	0	0	0	0	1	0	1	0	0.59	1.18	0.98	-1.28
2/13	2730	1	1	0	1	1	0	0	0	0	0	0.40	0.00	0.00	-1.55
Average Collision Rate for Analysed Intersections =												0.60	0.79	0.62	

Intersections Presented 7
Total Intersections Analysed 7
No. of Intersections This Classification 7
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Primary Arterial - Secondary Arterial - Urban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 99.5%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
2/22/250	4020	0	2	0	0	1	1	3	1	3	0	0.75	1.09	0.91	-1.33
6/325N	3170	0	0	0	0	0	2	0	0	0	0	0.17	0.35	0.00	-2.46
Average Collision Rate for Analysed Intersections =												0.46	0.72	0.45	

Intersections Presented 2
Total Intersections Analysed 2
No. of Intersections This Classification 2
Data Sorted at 99.5% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Primary Arterial - Collector - Rural															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
10/367	735	0	0	0	0	0	0	0	1	0	1	0.75	1.49	2.49	1.53
8/231	4295	7	1	0	3	5	2	4	5	0	3	1.91	1.79	1.70	1.16
6/375	1070	0	0	1	0	0	0	0	0	1	1	0.77	1.02	1.71	0.89
391/633THO	2200	0	0	0	0	1	1	0	1	2	0	0.62	1.00	1.25	0.60
16/668RUS	6451	0	0	0	1	3	1	0	2	4	1	0.51	0.68	0.99	0.50
8/229	2740	3	2	0	0	2	0	0	1	2	0	1.00	0.60	1.00	0.40
2/248	1670	0	0	0	0	0	0	1	0	1	1	0.49	0.98	1.09	0.39
83/363	730	0	0	0	0	0	0	0	0	1	0	0.38	0.75	1.25	0.30
12/215	1910	1	0	0	0	0	0	0	1	1	0	0.43	0.57	0.96	0.29
6/636WAB	760	0	0	0	1	0	0	1	0	1	0	1.08	1.44	1.20	0.26
2/332	2020	0	0	0	1	0	0	0	2	0	0	0.41	0.54	0.90	0.25
14/306	3444	1	0	0	0	2	2	0	2	1	0	0.64	0.80	0.80	0.21
12/205	3561	0	1	0	0	0	2	0	1	1	1	0.46	0.77	0.77	0.21
10/23S	2370	0	0	1	0	0	0	0	1	1	0	0.35	0.46	0.77	0.14
83/255	972	0	1	0	0	0	0	0	0	0	1	0.56	0.56	0.94	0.09
5/274E	2740	0	0	0	1	1	0	0	1	1	0	0.40	0.40	0.67	0.06
59/216	1260	0	0	1	0	0	0	1	0	1	0	0.65	0.87	0.72	-0.05
10/24/262	3640	0	0	2	2	0	0	0	1	1	0	0.45	0.30	0.50	-0.06
6/239	1420	0	0	1	0	0	0	1	1	0	0	0.58	0.77	0.64	-0.10
12/303	4302	1	0	0	1	1	1	2	2	0	0	0.51	0.64	0.42	-0.11
16/250/651	1860	0	0	0	1	0	0	0	1	0	0	0.29	0.29	0.49	-0.18
4/508	2310	1	1	0	1	0	1	0	0	0	1	0.59	0.47	0.40	-0.24
6/518	2620	1	0	3	1	0	0	0	1	0	0	0.63	0.21	0.35	-0.26
2/334	2725	1	2	0	0	0	2	0	1	0	0	0.60	0.60	0.34	-0.27
16/466	2762	0	0	0	0	0	0	0	0	1	0	0.10	0.20	0.33	-0.27
16/242E	2840	0	0	0	0	0	0	0	1	0	0	0.10	0.19	0.32	-0.27
16/242W	3350	0	0	0	0	0	2	0	0	1	0	0.25	0.49	0.27	-0.30
10/349	3720	0	0	0	0	0	0	0	1	0	0	0.07	0.15	0.25	-0.33
16/352	3706	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.56
3/334	3426	2	0	1	1	1	0	1	0	0	0	0.48	0.16	0.00	-0.57
Average Collision Rate for Analysed Intersections =												0.32	0.32	0.32	

Intersections Presented 30
Total Intersections Analysed 73
No. of Intersections This Classification 227
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Collector - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
59/629/630ST	2050	0	0	0	0	0	3	0	1	1	1	0.80	1.60	1.34	0.71
2/244	2235	1	0	0	2	1	1	2	1	0	2	1.23	1.47	1.23	0.62
6/641LUN	3746	0	1	1	1	0	0	0	2	0	0	0.37	0.29	0.49	-0.04
10/623SERI	2080	0	0	0	0	0	1	0	0	1	0	0.26	0.53	0.44	-0.18
59/205S	2700	0	0	0	0	0	0	1	0	0	1	0.20	0.41	0.34	-0.24
10/624FOR	3350	0	0	0	0	0	0	0	0	0	1	0.08	0.16	0.27	-0.27
3/332	2300	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.60
6/237S/627	2285	1	1	0	0	1	0	0	0	0	0	0.36	0.00	0.00	-0.60
6/611FAI	2194	0	0	1	0	0	1	1	0	0	0	0.37	0.50	0.00	-0.61
2/670ETRE	2115	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.62
2/660STC	2065	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.62
10/613FFA	1842	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.65
2/242W	1557	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.69
59/218	1360	0	0	1	0	0	0	0	0	0	0	0.20	0.00	0.00	-0.72
10/605BIG	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
10/617INL	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
10/637WAN	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
2/648RAT	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
6/419	n/a	1	0	0	2	1	1	0	1	1	0	n/a	n/a	n/a	n/a
83/591	n/a	0	1	0	0	0	0	0	0	0		n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.28	0.35	0.29	

Intersections Presented 20
Total Intersections Analysed 14
No. of Intersections This Classification 20
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Primary Arterial - Collector - Urban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
6/603ASH	1080	n/a	n/a	0	1	0	1	0	2	1	0	1.59	2.03	2.54	1.48
67/236/664	6976	0	0	0	0	0	0	0	2	1	2	0.20	0.39	0.65	0.05
59/205N	2540	1	1	0	2	0	0	0	0	0	2	0.65	0.43	0.72	-0.03
5/614GIL	2630	1	1	0	1	0	1	0	2	0	0	0.63	0.63	0.69	-0.05
6/415	2340	0	0	0	0	0	1	1	1	0	0	0.35	0.70	0.39	-0.38
5/274W	2550	0	0	0	0	0	0	0	1	0	0	0.11	0.21	0.36	-0.39
83/644MEL	3755	0	1	0	0	1	0	1	1	0	0	0.29	0.29	0.24	-0.44
10/443	4540	0	0	0	0	1	0	0	0	0	1	0.12	0.12	0.20	-0.46
10/610BRNA	4430	n/a	n/a	0	0	0	0	1	0	0	0	0.08	0.12	0.00	-0.69
10/610CRN	2699	1	0	0	0	0	0	0	0	0	0	0.10	0.00	0.00	-0.74
3/305	2270	3	0	0	0	1	1	1	0	0	0	0.72	0.48	0.00	-0.78
2/676HOL	1475	n/a	n/a	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.95
59/209/637	520	0	1	0	0	0	0	0	0	0	0	0.53	0.00	0.00	-1.31
10/602ATH	500	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.33
10/262/354	n/a	0	0	1	1	0	0	0	1	0	1	n/a	n/a	n/a	n/a
10/612CRA	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
10/624PAR	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
5/634WROB	n/a	0	0	0	0	1	0	1	0	0	0	n/a	n/a	n/a	n/a
6/615GRA	n/a	0	0	0	0	2	0	0	0	0	0	n/a	n/a	n/a	n/a
6/643NSTL	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
83/605NBEN	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
83/605SBEN	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.38	0.39	0.41	

Intersections Presented 22
Total Intersections Analysed 14
No. of Intersections This Classification 22
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Secondary Arterial - Secondary Arterial - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
11/59	1675	0	0	0	0	0	0	0	1	1	1	0.49	0.98	1.64	0.90
3/34N	1160	0	0	0	0	1	0	0	1	0	1	0.71	0.94	1.57	0.74
227/240E	700	0	0	0	0	1	0	0	0	0	1	0.78	0.78	1.30	0.28
17/233	1880	1	0	1	2	0	0	0	0	1	1	0.87	0.58	0.97	0.26
3/34S	735	1	0	0	0	0	0	0	0	1	0	0.75	0.75	1.24	0.24
17/68	960	0	0	2	0	1	0	0	0	1	0	1.14	0.57	0.95	0.05
3/31/240	1512	0	0	0	0	0	1	0	0	1	0	0.36	0.72	0.60	-0.16
3/18N	1677	0	0	0	1	0	0	0	0	1	0	0.33	0.33	0.54	-0.20
11/211	1810	0	0	0	1	0	1	0	0	1	0	0.45	0.61	0.50	-0.22
11/317	3478	1	0	0	1	0	0	1	0	0	0	0.24	0.16	0.00	-0.60
9/17	3050	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.62
11/214	1860	0	1	0	0	0	1	0	0	0	0	0.29	0.29	0.00	-0.72
3/5	1560	0	0	0	0	1	0	1	0	0	0	0.35	0.35	0.00	-0.76
17/325	1373	0	0	0	0	1	0	0	0	0	0	0.20	0.00	0.00	-0.79
12/317	1300	1	0	1	1	0	0	1	0	0	0	0.84	0.42	0.00	-0.81
25/250W	1180	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.83
200/201W	950	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.90
3/18S	935	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.91
3/21N	880	0	1	0	0	0	0	0	0	0	0	0.31	0.00	0.00	-0.93
3/21S	580	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.11
50/278	572	0	1	0	0	0	0	0	0	0	0	0.48	0.00	0.00	-1.12
20/364	515	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.18
280/632SPL	395	0	0	0	0	1	0	0	0	0	0	0.69	0.00	0.00	-1.34
276/328	345	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.43
269/364N	265	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.65
280/290	170	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-2.13
233/325	164	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-2.18
11/44S	n/a	0	1	0	0	0	0	1	1	0	1	n/a	n/a	n/a	n/a
20/20AN	n/a	0	2	1	0	0	1	0	0	0	0	n/a	n/a	n/a	n/a
240/245/654	n/a	0	0	1	0	0	0	0	0	0	1	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.34	0.28	0.35	

Intersections Presented 30
Total Intersections Analysed 27
No. of Intersections This Classification 33
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Secondary Arterial - Secondary Arterial - Suburban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
11/304	5480	1	1	4	1	2	0	3	2	7	4	1.25	1.60	2.17	2.14
7/68	2420	0	1	0	1	0	0	0	1	0	0	0.34	0.23	0.38	0.32
20/20AS	n/a	0	0	0	0	0	1	0	0	1	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.79	0.91	1.27	

Intersections Presented 3
Total Intersections Analysed 2
No. of Intersections This Classification 3
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Secondary Arterial - Secondary Arterial - Urban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
11/15	1185	1	0	0	1	2	1	0	2	0	0	1.80	1.39	1.54	-1.13
391/399	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												1.80	1.39	1.54	

Intersections Presented 2
Total Intersections Analysed 1
No. of Intersections This Classification 2
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Secondary Arterial - Collector - Rural

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
23/200	1480	0	0	1	0	0	0	1	2	1	0	0.93	1.48	1.85	1.10
23/422	1190	1	0	0	0	0	1	0	0	2	0	0.92	1.38	1.53	0.72
13/331	2145	0	0	1	1	0	0	0	0	2	1	0.64	0.77	1.28	0.61
206/213	6075	6	2	2	5	5	1	2	2	3	2	1.35	0.90	1.05	0.53
52/206	2761	0	0	0	0	1	2	0	1	1	1	0.60	0.99	0.99	0.37
11/313	1730	1	0	0	0	0	0	0	0	0	2	0.48	0.63	1.06	0.34
21/23	740	0	0	0	0	0	0	0	0	1	0	0.37	0.74	1.23	0.25
256/257	784	1	1	0	0	0	0	0	1	0	0	1.05	0.70	1.16	0.21
5/23	820	1	0	0	0	0	1	1	1	0	0	1.34	2.00	1.11	0.18
240/331	2580	1	0	0	2	2	0	1	2	0	0	0.85	0.64	0.71	0.07
68/326	2840	0	0	1	1	0	2	0	1	0	1	0.58	0.77	0.64	0.02
45/264	1320	0	0	0	0	0	0	0	0	1	0	0.21	0.42	0.69	-0.09
23/34	1340	0	1	0	0	0	0	0	0	1	0	0.41	0.41	0.68	-0.10
32/201S	1560	0	1	0	0	0	0	0	0	1	0	0.35	0.35	0.59	-0.16
5/351	2000	1	1	0	1	0	2	1	0	1	0	0.96	1.10	0.46	-0.23
32/201N	2460	0	1	1	0	1	0	0	0	0	1	0.45	0.22	0.37	-0.27
340/457	2520	0	1	1	0	1	0	0	0	0	1	0.43	0.22	0.36	-0.28
30/201N	2595	0	1	0	0	0	1	2	1	0	0	0.53	0.84	0.35	-0.28
32/608CHO	5346	n/a	n/a	1	1	1	0	1	1	0	0	0.32	0.20	0.17	-0.39
3/434	5320	0	0	0	1	0	0	0	0	0	0	0.05	0.00	0.00	-0.53
30/421	2323	0	0	1	0	0	0	0	0	0	0	0.12	0.00	0.00	-0.66
9/232S	2100	1	0	0	0	0	0	0	0	0	0	0.13	0.00	0.00	-0.67
11/307	1697	1	0	0	1	0	0	0	0	0	0	0.32	0.00	0.00	-0.72
211/520	1650	0	0	1	0	0	0	0	0	0	0	0.17	0.00	0.00	-0.73
7/229	1619	1	1	2	1	1	0	0	0	0	0	1.02	0.00	0.00	-0.73
25/270	1560	0	0	0	1	1	0	0	0	0	0	0.35	0.00	0.00	-0.74
3/638KIL	1555	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.74
7/231S	1393	0	1	0	0	1	0	0	0	0	0	0.39	0.00	0.00	-0.77
21/24	1390	0	0	1	0	0	0	1	0	0	0	0.39	0.39	0.00	-0.77
13/305	1350	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.78
Average Collision Rate for Analysed Intersections =												0.43	0.38	0.34	

Intersections Presented 30
Total Intersections Analysed 48
No. of Intersections This Classification 188
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Secondary Arterial - Collector - Suburban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
30/201S	3773	0	1	2	0	0	1	1	0	1	1	0.51	0.58	0.48	-0.01
9/238	10030	0	0	0	0	1	1	0	1	1	2	0.16	0.27	0.36	-0.03
59/504	590	0	0	0	0	0	0	0	1	0	0	0.46	0.93	1.55	-0.07
52/210/302	1688	0	0	0	1	1	0	1	0	1	0	0.65	0.65	0.54	-0.09
9/225	2176	0	0	0	0	0	1	1	0	0	0	0.25	0.50	0.00	-0.58
9/672WBE	3065	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.80
18/638KIL	2850	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.82
9/624PET	2345	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.89
13/613ELM	1950	0	0	0	1	0	0	1	0	0	0	0.28	0.28	0.00	-0.95
20/632OCH	1115	0	0	0	0	1	0	0	0	0	0	0.25	0.00	0.00	-1.20
18/23E	1020	0	3	1	2	1	1	0	0	0	0	2.15	1.07	0.00	-1.25
201/615LET	n/a	0	0	0	0	0	0	0	0	1	0	n/a	n/a	n/a	n/a
3/244	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
75/200	n/a	1	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
9/617LOC	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.43	0.39	0.27	

Intersections Presented 15
Total Intersections Analysed 11
No. of Intersections This Classification 15
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Secondary Arterial - Collector - Urban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
3/638MOR	12547	5	2	1	1	0	0	1	2	5	6	0.37	0.35	0.58	-0.10
50/261	1612	3	1	2	1	1	0	0	0	1	0	1.53	0.68	0.57	-0.45
16A/262	1720	0	0	0	1	1	0	0	1	0	0	0.48	0.64	0.53	-0.47
340/344WAW	1840	0	0	0	1	0	0	0	0	1	0	0.30	0.30	0.50	-0.49
30/620SGRE	545	0	0	0	0	0	0	0	1	0	0	0.50	1.01	1.68	-0.81
16A/355	1898	0	0	0	1	0	0	0	0	0	1	0.14	0.00	0.00	-0.98
9/229	2950	0	0	0	0	1	0	0	1	0	0	0.19	0.37	0.31	-0.99
17/416	860	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.25
10A/269ETH	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
10A/275SR	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
10A/291FF	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
17/668TEU	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
21/45/577	n/a	0	0	0	1	0	0	0	2	0	0	n/a	n/a	n/a	n/a
21/630SHAM	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
23/332W	n/a	0	0	0	1	0	0	0	0	0	1	n/a	n/a	n/a	n/a
25/250E	n/a	0	0	0	1	0	0	0	0	0	0	n/a	n/a	n/a	n/a
25/663RIV	n/a	0	0	0	0	0	0	0	1	0	0	n/a	n/a	n/a	n/a
3/242E	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
3/242W	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
3/254W	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
391/394/397	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
44/301	n/a	0	1	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
45/566	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
50/265	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
50/601ALO	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
50/625EMCC	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
50/625WMCC	n/a	0	1	0	0	1	0	0	0	0	0	n/a	n/a	n/a	n/a
5A/362	n/a	0	0	1	0	0	1	0	1	0	0	n/a	n/a	n/a	n/a
68/609ERI	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
9/232N	n/a	0	0	0	2	0	0	0	1	0	1	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.44	0.42	0.52	

Intersections Presented 30
Total Intersections Analysed 8
No. of Intersections This Classification 30
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

It is possible to have a group of intersections that all have negative criticality. This is most common in small groups and occurs when the critical collision rates are higher than the average collision rate of the group.

Intersection Classification: Collector - Collector – Rural															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		91	92	93	94	95	96	97	98	99	00	10 yr	5 yr	3 yr	
465/466	70	0	0	0	0	0	0	0	1	0	0	3.91	7.83	13.05	8.95
201/242	140	1	0	0	0	0	0	0	0	0	1	3.91	3.91	6.52	3.90
367/594	145	0	0	0	0	1	0	0	0	0	1	3.78	3.78	6.30	3.73
254/259	395	0	1	0	0	0	0	0	2	0	0	2.08	2.77	4.62	3.12
262/465	185	0	0	0	0	0	0	0	0	1	0	1.48	2.96	4.94	2.70
206/207	2515	1	0	3	0	0	2	1	2	1	5	1.63	2.40	2.90	2.12
24/250	970	0	0	0	0	0	0	0	0	2	1	0.85	1.69	2.82	1.78
270/355	270	0	0	0	0	0	0	0	1	0	0	1.01	2.03	3.38	1.56
205/332W	274	0	0	0	0	0	0	0	1	0	0	1.00	2.00	3.33	1.53
485/486	375	0	0	0	0	0	0	0	0	0	1	0.73	1.46	2.44	0.89
243/306	380	0	0	0	0	0	0	0	0	1	0	0.72	1.44	2.40	0.87
302/303	380	0	0	0	1	0	0	0	0	0	1	1.44	1.44	2.40	0.87
41/475	415	0	0	0	0	0	0	0	0	0	1	0.66	1.32	2.20	0.73
260/265E	435	0	0	0	0	0	0	0	0	1	0	0.63	1.26	2.10	0.66
217/218	475	0	0	0	0	0	0	0	0	0	1	0.58	1.15	1.92	0.54
200/305	1460	1	1	1	2	0	0	1	1	0	1	1.50	1.13	1.25	0.34
23/242	1500	0	0	0	0	0	0	0	2	0	0	0.37	0.73	1.22	0.31
302/311	585	0	0	0	0	0	0	0	1	0	0	0.47	0.94	1.56	0.29
501/634STG	600	0	0	0	0	0	0	1	0	1	0	0.91	1.83	1.52	0.27
23/346	637	0	0	0	0	0	0	1	1	0	0	0.86	1.72	1.43	0.21
205/216N	1810	0	0	1	0	0	0	0	0	1	1	0.45	0.61	1.01	0.15
205/330	910	1	0	0	0	0	0	0	1	0	0	0.60	0.60	1.00	-0.07
313/315	1025	0	0	0	0	0	0	1	0	1	0	0.53	1.07	0.89	-0.13
23/667SWA	1200	0	0	0	0	0	0	0	0	0	1	0.23	0.46	0.76	-0.21
313/520E	1770	1	0	0	1	0	0	0	0	1	0	0.46	0.31	0.52	-0.35
200/311	1911	0	1	1	0	0	1	1	0	1	0	0.72	0.86	0.48	-0.37
9/519	1960	0	1	0	1	0	0	0	1	0	0	0.42	0.28	0.47	-0.37
216/311	2000	0	0	1	1	0	0	0	0	0	1	0.41	0.27	0.46	-0.38
457/468	2400	0	0	0	0	0	0	0	1	0	0	0.11	0.23	0.38	-0.41
205/216S	2930	1	1	1	1	1	2	0	0	0	0	0.65	0.37	0.00	-0.76
Average Collision Rate for Analysed Intersections =												0.52	0.39	0.45	

Intersections Presented 30
Total Intersections Analysed 166
No. of Intersections This Classification 247
Data Sorted at 90 % Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Collector - Collector - Suburban

Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
206/311	1960	3	1	1	0	2	3	0	2	1	2	2.10	2.24	2.33	1.59
207/213	5290	0	1	1	1	2	1	4	0	2	1	0.67	0.83	0.52	-0.05
241/334W	3250	2	1	0	2	0	2	1	0	0	1	0.76	0.67	0.28	-0.36
210/311	1105	2	1	0	0	0	0	0	1	0	0	0.99	0.50	0.83	-0.58
9/616SGIM	6165	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-0.60
241/334E	2590	1	0	0	1	0	0	0	0	0	0	0.21	0.00	0.00	-0.68
306/646PLU	1430	0	0	0	0	0	0	1	0	0	0	0.19	0.38	0.00	-1.27
350/633SMC	1395	0	0	0	0	0	0	1	0	0	0	0.20	0.39	0.00	-1.28
23/637MIA	1200	0	0	0	1	0	0	0	0	0	0	0.23	0.00	0.00	-1.36
307/309	340	0	1	0	0	0	0	0	0	0	0	0.81	0.00	0.00	-1.50
221/248	845	0	0	0	0	0	1	0	0	0	0	0.32	0.65	0.00	-1.58
200/604DOM	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
210/302	n/a	0	0	0	0	0	0	0	0	0.	1	n/a	n/a	n/a	n/a
23/338	n/a	0	0	0	1	0	0	0	0	0	0	n/a	n/a	n/a	n/a
259/637KEN	n/a	0	0	1	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
351/612ECR	n/a	0	1	0	2	0	1	0	1	0	0	n/a	n/a	n/a	n/a
351/612WCR	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
354/622ELP	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
605/605NAU	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
633/633MAC	n/a	0	0	0	0	0	0	2	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.59	0.51	0.36	

Intersections Presented 20
Total Intersections Analysed 11
No. of Intersections This Classification 20
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Intersection Classification: Collector - Collector - Urban															
Intersection I.D.	Volume Entering	Reported Collision History on Record										Collision Rate (coll/mve)			3 yr. Criticality conf = 90%
		92	93	94	95	96	97	98	99	00	01	10 yr	5 yr	3 yr	
244/245N	940	0	0	0	0	0	0	2	1	1	1	1.46	2.91	2.91	1.72
366/620ING	600	0	0	0	0	0	0	0	1	0	0	0.46	0.91	1.52	0.11
206/210S	1780	0	2	1	0	1	0	0	1	1	0	0.92	0.62	1.03	0.04
200/210	1870	0	1	0	0	0	0	1	0	1	1	0.59	0.88	0.98	0.00
201/602ALT	7153	0	2	0	0	2	2	1	1	2	1	0.42	0.54	0.51	-0.23
264/666ROS	1030	0	0	2	0	2	1	0	1	0	0	1.60	1.06	0.89	-0.27
206/210N	1430	0	1	1	0	1	0	0	0	0	1	0.77	0.38	0.64	-0.41
9/222/231	5380	0	1	1	3	3	1	1	0	1	2	0.66	0.51	0.51	-0.52
215/601BEA	4140	1	0	1	3	1	1	4	0	0	0	0.73	0.66	0.00	-0.81
222/329	1190	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.11
307/408	931	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.20
225/232	730	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.31
201/420	755	n/a	n/a	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.41
266/587	570	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.44
205/246	410	1	0	0	0	0	0	1	0	0	0	1.34	1.34	0.00	-1.65
41/643MCA	390	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.69
305/332	320	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	-1.85
205/650RIV	n/a	0	0	0	0	0	1	0	0	0	0	n/a	n/a	n/a	n/a
212/508	n/a	1	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
24/270S	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
24/654OAK	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
247/330N	n/a	0	0	0	1	0	0	1	0	0	1	n/a	n/a	n/a	n/a
247/330S	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
250/663RIV	n/a	0	0	0	0	0	0	0	0	1	0	n/a	n/a	n/a	n/a
250/664RIV	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
266/268	n/a	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
270/661RAP	n/a	0	0	0	0	0	1	0	0	0	0	n/a	n/a	n/a	n/a
285/289	n/a	0	0	0	3	1	1	0	0	0	0	n/a	n/a	n/a	n/a
302/625RIC	n/a	0	2	0	0	1	0	1	1	0	0	n/a	n/a	n/a	n/a
305/631STA	n/a	n/a	n/a	0	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a
Average Collision Rate for Analysed Intersections =												0.53	0.58	0.53	

Intersections Presented 30
Total Intersections Analysed 17
No. of Intersections This Classification 79
Data Sorted at 90% Confidence Level
Whenever possible, the volume entering is the most recent traffic count taken from the annual *Traffic on Manitoba Highways* publication.

Glossary

Ability Impaired by Alcohol	Driver had consumed a sufficient quantity of alcohol to impair their physical/mental condition.
Ability Impaired by Drugs	Driver had used a controlled substance and was legally impaired in the judgement of a law enforcement officer.
Accident	Refer to collision.
All-terrain Vehicle	An off-road vehicle which operates on three or more low pressure tires, has a seat designed to be straddled by the operator, and has handle bars for steering the vehicle.
Antique Vehicle	A car, truck or motorcycle that is more than thirty years old at the time of application for registration. A motor vehicle registered as an antique car, truck or motorcycle can be driven only when: a. taking it to be repaired or serviced; b. displaying it to the public in a parade or procession and driving it to or from such a parade or procession, c. driving it in an antique car, truck or motorcycle rally as authorized by the Registrar of Motor Vehicles.
Collision	A reportable motor vehicle collision is one that results in a fatality, injury and/or total property damage exceeding $1,000.00.
Coll/mve	Collision per million vehicles entering.
Commercial Truck	A truck (or trailer) used to transport the registered owner's (or lessee's) own business goods: a. beyond a radius of 20 kilometres of the City of Winnipeg, where the registered owner's business address is in the City of Winnipeg, b. beyond a radius of 30 kilometres of a city, town or village other than the City of Winnipeg, where the registered owner's address is not in the City of Winnipeg.
Contributing Factors	Those events or circumstances that directly contribute to a traffic collision: <u>Driver Action</u>: Used to determine if the actions performed immediately prior to the collision may have been a factor in causing the collision.

Contributing Factors con't	Those events or circumstances that directly contribute to a traffic collision: Human Condition: Used to determine if a driver's medical condition may have been a major factor in contributing to collision causation. Vehicle Condition: Used to determine if a vehicle has a mechanical defect that may have been a factor in collision causation. Environmental Condition: Used to determine if environmental factors are in some way responsible for the collision.
Dealer	A recognized person who in the course of his business buys, sells, exchanges, advertises, exhibits or offers for sale, or acts as a broker of, or commission agent in respect of new or used vehicles of a type required to be registered under *The Highway Traffic Act* and/or *The Taxicab Act*, and as such, is allowed to purchase for their own use dealer licence plates that can be affixed to a motor vehicle under their care.
Delivery Car	A passenger motor vehicle or a sedan delivery used, in either case, for delivery purposes, but does not include a public service vehicle or taxicab.
Driverless Vehicle/ Ran Out of Control	Includes improperly parked vehicles, vehicles set in motion by failure of parking brakes, vandalism, etc., without a driver in control. Includes cases where young children start and/or attempt to operate vehicles.
Farm Truck	A motor vehicle classified as a "truck" at time of registration and is owned by a person engaged in farming.
Fatal Collision	A motor vehicle collision which results in death to one or more individuals within 30 days of the collision.
Had Been Drinking/ Suspected Alcohol Use	Driver had consumed alcohol, but his/her physical condition was not legally impaired or tested for legal impairment.
Hydroplaning of tires	Refers to water on the roadway. The contact between the vehicle's tires and the roadway surface was eliminated.

Injury Collision	A motor vehicle collision which results in non-fatal injury to one or more individuals.
Livery	A vehicle licenced under *The Highway Traffic Act* for the transportation of persons for compensation and is licenced to operate in the Province according to terms issued by the Motor Transport Board.
Moped	A motor vehicle which: a. has 2 tandem wheels or 3 wheels, each of which is more than 250 millimetres in diameter, b. has a seat or saddle having a minimum unladen height of 650 millimetres, when measured from the ground level to the top of the forward most part of the saddle, c. is capable of being driven at all times by pedals only if so equipped, by motor only or by both pedals and motor, and d. the motor has a piston displacement of not more than 50 cubic centimetres, or is an electric motor neither of which is capable of enabling the moped to attain a speed greater than 50 km/h.
Motorcycle	A motor vehicle, other than a tractor which: a. is designed to travel on not more than three wheels in contact with the ground, and b. has a seat or saddle for the use of the rider sitting astride thereof and is capable of attaining a speed of 50 km/h or more, c. and includes a bicycle with a motor attached by which it is driven, a motor scooter.
Not Stated	Reporting document does not contain the necessary information for a particular category.
Off-Road Vehicle (ORV)	Included in this category are the following: snowmobiles, off-road vehicle motorcycles, all-terrain vehicles, amphibious vehicles, dune/sport buggy and 4 wheel drive vehicles operated off-road.
Passenger Vehicle	A motor vehicle classified by the manufacturer as a passenger car or which is designed, constructed or adapted for the principle purpose of transporting passengers and includes a delivery car, but does not include a motorcycle, moped or motor vehicle which is designed, constructed or adapted for the purpose of carrying goods or commodities.
Property Damage Collision	A motor vehicle collision in which damage to vehicle and/or property was $1,000.00 or more, and which did not result in death or injury.

Public Service Vehicle (PSV)	A motor vehicle or trailer operated by or on behalf of any person, for transportation for gain or compensation of persons or property upon a highway, and includes a semi-trailer truck; but does not include the passenger-carrying-motor vehicles of an electric, or steam railway or motor bus company operating on the streets of a city, or school buses, ambulances or hearses or motor vehicle operated for gain or compensation under *The Taxicab Act* or a municipal by-law in cities, towns, and villages.
Repairer	A person who maintains a garage for the purpose of rendering services therein upon motor vehicles and/or trailers, at a charge, price or consideration; or who owns and operates a fleet of five or more motor vehicles or trailers; or both, and maintains a facility for their repair, is permitted under *The Highway Traffic Act* to obtain "Repairer" licence plates to be used to transport motor vehicles for repair from place of origin to the repair facility and return, and the testing of the motor vehicle after the repair work has been completed.
Rural Collision	A collision occurring on the provincial highway system where the posted legal speed limit is 90 or 100 km/h.
Safety Equipment	Seatbelts, safety helmets and child restraints.
Snowmobile Collision	A snowmobile collision which results in death, injury and/or total property damage of $1,000.00 or more.
Snow Vehicle	A vehicle that has a gross vehicle weight in exceeding 454 kilograms and a. is not equipped with wheels, but in place thereof is equipped with tractor treads alone or with tractor treads and skis, or with skis and a propeller, or is a toboggan equipped with tractor treads or a propeller, b. is designed primarily for operating over snow or ice, and is used primarily for that purpose, and c. is designed to be self-propelled.
Suburban Collision	A collision occurring on the provincial highway system where the posted legal speed limit is 70 or 80 km/h.

Taxicab	A motor vehicle had, kept, used, intended for use, or operated, for the transportation of persons for compensation, and includes such vehicles when garaged or under repair; but does not include a. a public service vehicle, b. a trolley bus or passenger-carrying motor vehicle or a public transportation system operating on the streets of a city, c. a school bus, d. an ambulance, e. a hearse, or f. a motor vehicle, or vehicle of a class of motor vehicles, that The Taxicab Board established under *The Taxicab* Act excludes from the definition of a taxicab under that Act.
Tractor	A self-propelled vehicle that is designed primarily for traction purposes, and that is not itself constructed to carry a load other than the driver, and includes a farm tractor but does not include a truck tractor or a special mobile machine.
Trailer	A vehicle designed for carrying persons or chattels, and for being towed by a motor vehicle, and includes a farm trailer but does not include an implement of husbandry that is temporarily towed, propelled, or moved upon a highway.
Truck	A motor vehicle or semi-trailer truck that is not a delivery car and that is constructed or adapted to carry goods, wares, and merchandise, freight or commodities, but not passengers or luggage.
U-Drive (Drive Yourself Vehicle)	A motor vehicle or trailer, kept for hire, that may be hired or rented without a drivers by the hour, day, week or longer but for which a single rental period is less than 30 days.
Urban Collision	A collision occurring on the provincial highway system where the posted legal speed limit is 50 or 60 km/h.
Vehicle Modification	A motor vehicle in which the axles, body, brakes, engine, steering control or suspension have been substantially altered or replaced with components of a different design or capacity from that approved by the manufacturer of the original vehicle.
Victims	All persons killed or injured in a motor vehicle related collision occurring on a public roadway.

Transportation and
Government Services
Division of
Driver and Vehicle Licencing